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SEARLE

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Abstract of House of Delegates Actions

Annual Meeting May 13-17, 1962

In order to advise the entire membership of the Society on actions taken by the 1962 House of Delegates, an unofficial abstract has been prepared. This is one means of communication between headquarters and membership which will be continued whenever important policy-making sessions of the HOUSE OF DELEGATES are held.

Jacob E. Reisch, M.D.
Secretary-Treasurer

REFERENCE COMMITTEE ON CONSTITUTION AND BYLAWS

▶ The Name Shall Remain ILLINOIS STATE MEDICAL SOCIETY

▶ Change in Method of Amending Constitution

In the future, proposed amendments must be presented at one annual business meeting of the HOUSE to be acted upon at the next - a "lay-over" of one year. Bylaws amendments, however, may still be presented at one session and acted upon the following day.

▶ New Name Given to "Council"

The "Council" is now called the BOARD OF TRUSTEES, and "Councilors" are TRUSTEES of this Society.

▶ "Presiding Officer" Now Known as SPEAKER

The "Presiding Officer" and "Assistant Presiding Officer" are to be known as the SPEAKER and VICE SPEAKER of the HOUSE OF DELEGATES. However, the president of the Society will continue to appoint the reference committees of the House, and "may" consult the officers and trustees.

▶ Executive, Finance and Policy Committees Set Up

After the "organization" of the Board of Trustees was outlined, these three Committees were provided for and duties and limitations established.

▶ Members Must Continue to be Citizens of the United States

No action was taken on the resolutions recommended by county medical societies relative to the removal of "citizenship as a prerequisite for membership in the ISMS."

▶ Committee Appointed to Evaluate Current Boundaries

A resolution was approved to have the Board of Trustees appoint a committee to evaluate the adequacy of the boundaries of the current districts and to make recommendations to the 1963 House of Delegates.

REFERENCE COMMITTEE ON ADMINISTRATIVE ACTIVITIES

▶ President and President-Elect Presentations Reviewed

It was recommended that members read these presentations when they appear in the Illinois Medical Journal . . . Dr. Lull's acceptance speech outlining

his suggestions for progress may well serve as a guide-line for Society work during the coming year.

▸ Constructive Suggestions from Secretary-Treasurer

This report contained suggestions relative to the Secretaries' Conference, which will be repeated this fall, and possibly each year.

▸ Reserve Funds in Custody of Continental Illinois National Bank

General and Benevolence fund reserves are in the custody of Continental's trust division for investment supervision. The Bylaws now provide that the "Finance Committee . . . shall supervise the financial transactions and shall make recommendations to the Board for the control and investment of the funds of the ISMS."

▸ Scientific and Educational Foundation Established

This Foundation was established since the 1961 meeting and needs the financial support of all members. The first contribution of $500 was made by Dr. Joseph Mallory of Mattoon; also a contribution of $3800 was received from the Continental Casualty Company for an educational television series on medicine.

▸ Workshop Conference Approved

A Workshop Conference of Committee Chairmen with the Board of Trustees was approved to be held again this fall - probably in a downstate area.

▸ Federal Government Assistance Opposed

The House approved the POLICY STATEMENT ". . . that ISMS is not in favor of any federal government assistance program which removes administrative control from the state or local government . . ."

▸ Ethics and Socio-Economic Practices Considered

A resolution requesting the Medical Examining Committee to consider the inclusion of questions dealing with ETHICS and PROPER SOCIO-ECONOMIC PRACTICES in the examination for licensure in Illinois was approved.

▸ Set of Basic Policies to be Developed

A set of basic policies of the ISMS is to be developed and presented to the House annually for confirmation and/or alteration and adoption.

▸ Illinois Association of the Professions Approved

With the establishment of this Association at the earliest possible date - at least during the next year - ISMS should terminate its membership in the Interprofessional Council.

▸ Sponsorship of Approved Nursing Home Authorized

The BENEVOLENCE COMMITTEE was authorized to investigate the selection or sponsorship of an approved nursing home to be recommended to families of elderly physicians. So that resources of this Committee will not be further depleted, an INCREASE in their ALLOCATION beginning January 1, 1963, was authorized.

▸ "New Member" Drive Encouraged

The Membership Committee was encouraged to continue its efforts to secure new members from the 300 downstate and 2,700 in Cook County who have not affiliated with organized medicine.

▸ Support to AMA-ERF Encouraged

Since each physician in Illinois gives only $20 to AMA-ERF under the present dues structure, the reference committee pointed out that many might want to supplement this support to medical education and other student loan programs

now under way. However, it has been a source of pride to all AMA delegates that Illinois has been at the top of the list of contributing states since 1953, when the program was set up.

Carbondale Regional Office Rejected

Since members of staff from Chicago Headquarters and the legislative office in Springfield are available, regional office for Carbondale was not considered economically advisable at this time.

REFERENCE COMMITTEE ON ECONOMIC ACTIVITIES

Prepayment Plans and Organizations Committees to be Activated

The reference committee recommended that these committees be activated so they could study and act on any economic problems which arise.

MEDICARE Contract to be Studied

The Committee on Federal Medical Services is to meet with appropriate officials before a contract with MEDICARE for the 1963 fiscal year is approved.

Hospital Utilization Discussed in Detail

The joint statement of the ISMS and the Illinois Hospital Association was studied and the effect of utilization upon the cost of insurance discussed. The Liaison Committee was given this subject for active study.

Mandatory Assessments Condemned

The House was requested to reaffirm the action and policy established by the Judicial Council of the AMA regarding Mandatory Assessments against medical staff members for hospital building campaigns.

Advisory Committee Commended

The Advisory Committee was recognized for its excellent work, and was requested to send more clarifying information to ISMS members regarding the Illinois Public Aid Commission programs.

Continued KERR-MILLS Law Support Encouraged

The Ad Hoc Committee to the IPAC was encouraged to continue its work on the Kerr-Mills Law in Illinois . . . with the hope that the benefits available for Illinois residents might be improved by continued study.

Social Security Poll Completed

The results were printed in the Illinois Medical Journal (April issue) and the continued work of the Committee on Medical Economics was recommended.

Action on the Preliminary Relative Value Study Deferred

Because of the complex nature of the report of the Committee on Relative Value, final action was deferred until ". . . an appropriate date in the future." The report was "accepted as a report of progress," and copies are available for anyone desiring to study the material.

Resolution #25 Amended

"RESOLVED that the House of Delegates does hereby reaffirm its previous guarantee of medical care regardless of the ability of the patient to pay, and at no time. . . . will we as physicians refuse to render needed medical care to any patient." The resolution added that this guarantee of medical care "in no way lessens our opposition to the King-Anderson Bill or similar legislation financing medical care through increased taxes under the Social Security System."

Resolution #26 Reworded

". . . . it is the declared policy of the ISMS that all members of the Society are urged to cooperate with such voluntary health insurance plans approved by the Prepayment Committee, which provide the eligible persons over age 65 with broad coverage at the lowest possible cost, and also that the members of ISMS are urged to serve this group of eligible senior citizens, who are paying such costs personally, at appropriately adjusted charges."

Resolution #27 Referred to Board of Trustees

The Board is to initiate a study in various areas of Illinois to obtain statistics, not presently available, relating to the costs of conducting a medical practice in Illinois; including expenses of general practitioners and physicians in various specialties. All county medical societies are requested to cooperate in this undertaking.

REFERENCE COMMITTEE ON SCIENTIFIC ACTIVITIES

Recognition Given to Illinois Medical Journal

The entire department was complimented on the efforts being made to pull out of the slump reflected across the nation in medical advertising. The recognition also concerned the editorial policy, the format of the publication as a whole, and the efforts to present the best material possible to keep ISMS members informed and well aware of the scientific, economic and political activities in Illinois.

Committees on Child Health and Cardiovascular Disease Complimented

The Cardiovascular Committee was complimented on its activities, and the report on Child Health relative to booster shots of Salk vaccine and the community approach to the use of oral polio vaccine was approved.

Thoroughness of Maternal Welfare Committee Praised

A recommendation that the Board form a Joint Committee on Perinatal Mortality under the direction of the Maternal Welfare and Child Health Committees was approved. The Maternal Welfare Committee was praised for its scientific thoroughness in reviewing causes of maternal death and the possible means of improving morbidity and mortality in Illinois.

Committee on Nursing Commended for Effectiveness

The recommendation of this Committee was approved to "endorse in principle that Nursing Education in Junior Colleges be undertaken. . . . as an added facility for nursing education, and to assist in the cultural and professional training of nurses."

Scientific and Educational Programs Praised

The Chairman of the Postgraduate Medical Education and Scientific Education Committee was encouraged to continue to offer educational programs in various areas of the state.

TB Testing to be Continued on Larger Scale

All children under school age "should be TB tested annually." This should be repeated with every physical examination . . . with the Mantoux test for children more than 3 years of age, or using intermediate strength tuberculin as indicated, using a single or multiple puncture method.

Adequate Laboratory Supervision Desired

The Committee on Laboratory Evaluation was asked to continue work on adequate professional supervision of laboratories throughout the state.

Resolution to be Presented to AMA HOUSE

A resolution presented by the Champaign County Medical Society opposing the requirement that a written summary be included on patients' hospital records was approved, and will be presented to the June AMA House.

REFERENCE COMMITTEE ON PUBLIC RELATIONS ACTIVITIES

Importance of Grievance Committee Stressed

It was suggested that the report of the Grievance Committee contain the content of the questionnaire sent to the county societies. It was thought that perhaps the District Grievance Committees should be called upon more frequently, to assure better cooperation in the downstate mechanism.

Prominency of Physician's Role Stressed

The Public Relations Committee stressed the physician's role in the development of public opinion in his day by day contact with patients.

Community Health Week - October 21, 1962

The positive program open should provide an opportunity for leadership and should focus the attention of all residents on the problems of health progress in the community. Many phases can be drawn within the framework: automobile safety, health fairs, health diets, TV and radio participation, career conferences, school health, etc.

Medical Self Help Kit Effective

The distribution and educational program of the Committee on Disaster Medical Care has been effective, and work is progressing continuously.

No Ethical Relations Cases

The Ethical Relations Committee reported there were no ethical relations cases during the past year at the county medical society level.

Committee on Public Safety Commended

It was suggested that the Committee carry on its work with the present personnel, completing the projects as outlined.

Importance of Supplying Physicians to Rural Areas Stressed

The House expressed the hope that the Rural Health and Student Loan Fund would continue to operate and remain in the hands of the Loan Fund Committee, not being joined with the AMA-ERF. These funds should be available for young Illinois residents to supply physicians to our own rural communities . . . the object of the original joint program with the Illinois Agricultural Association.

REFERENCE COMMITTEE ON LEGISLATIVE ACTIVITIES

Consolidation of Legal Committees Approved

Consolidation of the Medical-Legal, Impartial Medical Testimony, Liaison to the Illinois Bar Association, Narcotics Committee, Committee on Forensic Medicine was approved, with the suggestion that as "sub-committees" they be given a measure of autonomy so they might function without constant reference to the over-all committee. The Committee on Committees of the Board will be given this information.

Development of a "Medical-Legal Notebook" Approved

This notebook is thought to be a definite aid to the individual practitioner, and the House approved the activity as a phase of committee work to be undertaken.

Committee on Medical Service Highly Complimented

The Committee was complimented on its activities in the field of legislation and the importance of a long-range program coupled with personal contact in both Springfield and Washington.

Interprofessional Code of Conduct Praised

This Code, prepared jointly by physicians and lawyers, should serve as an excellent basis for firm cooperation and continued friendship between these two important professions.

Committee on Impartial Medical Testimony Commended

The progress of this Committee has been outstanding . . . and has been accepted by the Illinois State Supreme Court. They request more publicity so the public can be informed about the attitude of the profession toward the proper administration of justice.

Reform of Federal Tax Structure Approved

The Committee on Medical Service is asking for reform of the federal tax structure for the purpose of returning adequate revenue sources to the states so as to allow them to discharge the welfare functions.

Federal Control Rejected

A resolution was approved reaffirming our adherence to the historic pattern of government with its decentralized system of controls and rejecting any system of federal control over those who dispense personal service.

REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Recognition To Be Given Physicians

A resolution was approved requesting the AMA to seek out and recognize physicians within the AMA who have given time and talent without pay to organizations rendering medical care in foreign countries.

Kendall County Resolution Rejected

Since a policy was established by the majority in reference to Blue Shield for those over age 65, the implementation of the Kerr-Mills Act, and the authorization to conduct a Relative Value Study . . . it was the consensus of the Committee and the House that the minority should "go along with that policy."

House Reports to Appear in April Issue of JOURNAL

The request that all annual reports and resolutions for the May House of Delegates be printed in the March issue of the JOURNAL was denied as being impractical . . . the preparation and publication of reports in the April issue was judged adequate.

ELECTION OF OFFICERS, BOARD COMMITTEE AND DISTRICT COMMITTEE MEMBERS; REGISTRATION FIGURES

1962-1963 Officers

President:	George F. Lull, Chicago
President Elect:	Harlan English, Danville
1st Vice President:	George C. Turner, Chicago
2nd Vice President:	Joseph R. Mallory, Mattoon
Secretary-Treasurer:	Jacob E. Reisch, Springfield
Speaker of the HOUSE:	Walter C. Bornemeier, Chicago
Vice Speaker of the HOUSE:	E. W. Cannady, East St. Louis

Board of Trustees

1st District-Carl E. Clark, Sycamore; 2nd District-Ralph N. Redmond, Sterling; 3rd District-Caesar Portes, E. A. Piszczek, Wm. E. Adams, John Lester

Reichert, Ted LeBoy and J. Ernest Breed, Chicago; 4th District-Fred C. Enders, Peoria Heights; 5th District-Jacob E. Reisch, Springfield; 6th District-Newton DuPuy, Quincy; 7th District-Arthur F. Goodyear, Decatur; 8th District-Wm. H. Schowengerdt, Champaign, 9th District-B. E. Montgomery, Harrisburg; 10th District-W. W. Fullerton, Sparta; 11th District-Bernard Klein, Joliet.

Trustee-at-Large-Edwin S. Hamilton, Kankakee

Chairman of the Board-Newton DuPuy, Quincy

Committees within the Board of Trustees

Executive Committee

Newton DuPuy, Chairman of the Board
George F. Lull, President
Harlan English, President Elect
Jacob E. Reisch, Secretary-Treasurer
Edwin S. Hamilton, Trustee-at-large
B. E. Montgomery, Chairman of Finance Committee
E. A. Piszczek, Chairman of Policy Committee

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William E. Adams
Carl E. Clark

Policy Committee

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Grievance Committee

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Ward Eastman

Medico-Legal Committee

Edward C. Helfers
Ralph M. Reynolds

Medical Benevolence Committee

Willis I. Lewis

Medical Testimony Committee

Edwin F. Hirsch
Peter Rumore

Prepayment Plans and Organizations

Maurice M. Hoeltgen

Delegates and Alternate Delegates to the AMA

(Effective January 1, 1963)

Delegates	Alternates
Maurice M. Hoeltgen	H. Close Hesseltine
Leo P. A. Sweeney	Raleigh C. Oldfield
Carl F. Steinhoff	Arkell M. Vaughn
William K. Ford	Paul A. Dailey
B. E. Montgomery	Fred C. Endres

Registration Figures for 1962 Annual Meeting:

Physicians	1,421
Guests	640
Scientific Exhibitors	116
Technical Exhibitors	283
Woman's Auxiliary	309
TOTAL	2,769

Abstract of Board of Trustees Actions

Meeting of June 24, 1962

COMMITTEES REORGANIZED

Chairman of the Board of Trustees, Dr. Newton DuPuy, presented his recommendations on committee appointments for 1962-63. With minor changes in over 50 committees the Board of Trustees endorsed the list of appointments. Letters to appointees will be mailed in July. A conference of officers with committee chairmen will be held in Chicago, September 16.

REVISION OF BUDGET FOR 1962

A six month revision of the budget was approved with a small anticipated reserve for the end of 1962. Revision was necessary because of unanticipated expenditures for the special meeting of the House of Delegates in March, a less than anticipated income from advertising in the Journal, and an increase in expenditures for educational material in the Kerr-Mills versus King-Anderson Bill campaign.

EDUCATIONAL AND SCIENTIFIC FOUNDATION QUALIFIED

Special Legal Counsel reported that the Educational & Scientific Foundation of ISMS has received notice that it is qualified under Internal Revenue to receive donations and grants as a tax exempt, non-profit corporation. The Foundation has been operating on this basis for almost a full year and has received grants from several donors.

A $10,000 grant was announced by the Executive Administrator to be used as administrative funds to support the Impartial Medical Testimony program for two years. The grantor is the Lilly Endowment, Inc., of Indianapolis, Indiana.

Members of the profession are called upon to make bequests to the Foundation of ISMS for future educational and scientific efforts on the part of the society.

STATE SURVEY ON T.B. REQUESTED

Support and endorsement of a resolution by the Chicago Medical Society was given for a survey of the tuberculosis problems within the State of Illinois. The purpose of the survey will be to present recommendations to bring about the most efficient and effective program for the control and ultimate eradication of this disease.

IPAC ADVISORY COMMITTEES

District Prepayment Plans and Organizations committees have been authorized to review cases in connection with the administration of the quantity, quality and cost standards of the IPAC medical programs. They will be used in areas where county medical societies are not big enough to supply the customary advisory and special committee service, or are unable to act on cases within their particular jurisdiction.

Recent announcements in the news by the state auditor make it even more important that county society advisory committees assure themselves that medical care given to recipients of public aid is of the highest quality possible.

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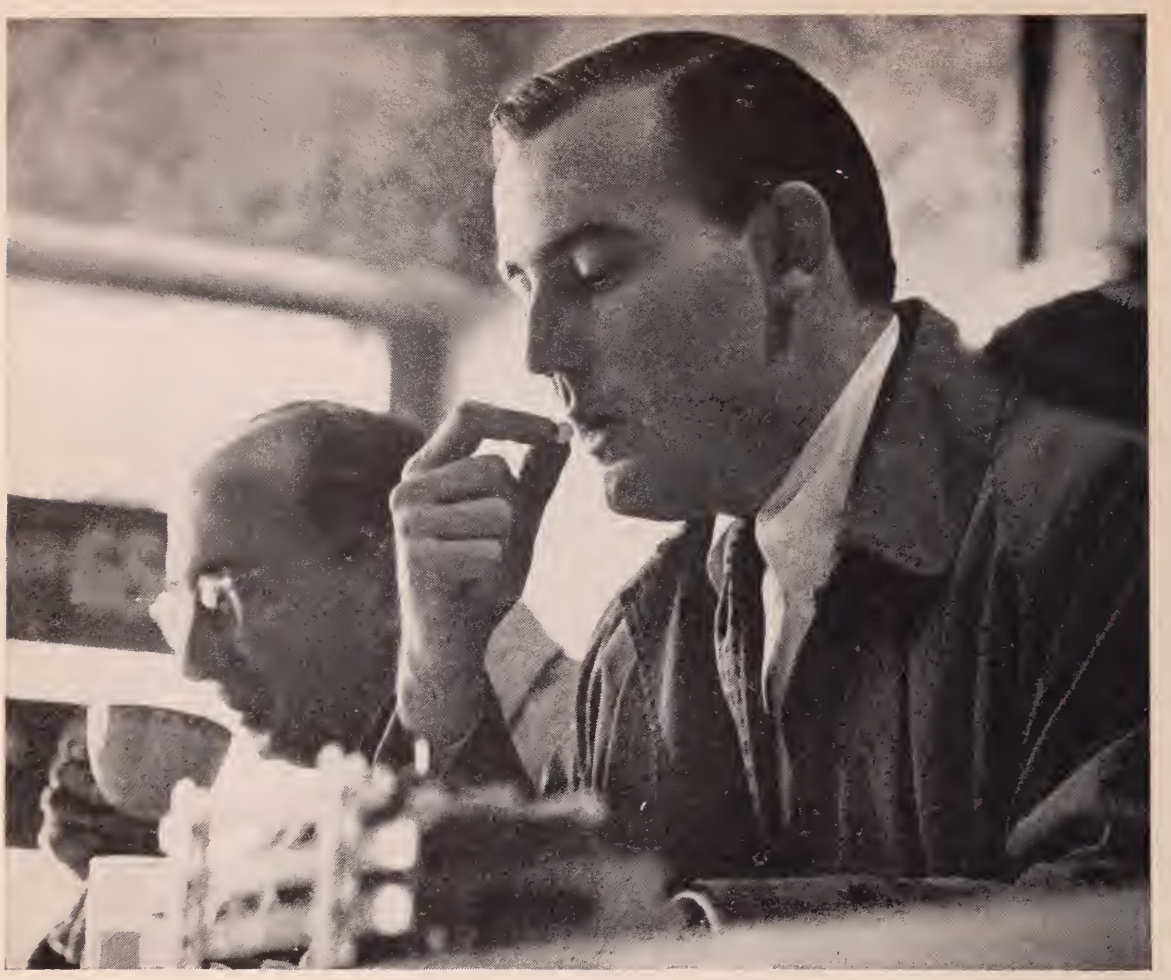
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*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961.

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Volume 122, No. 1 July, 1962

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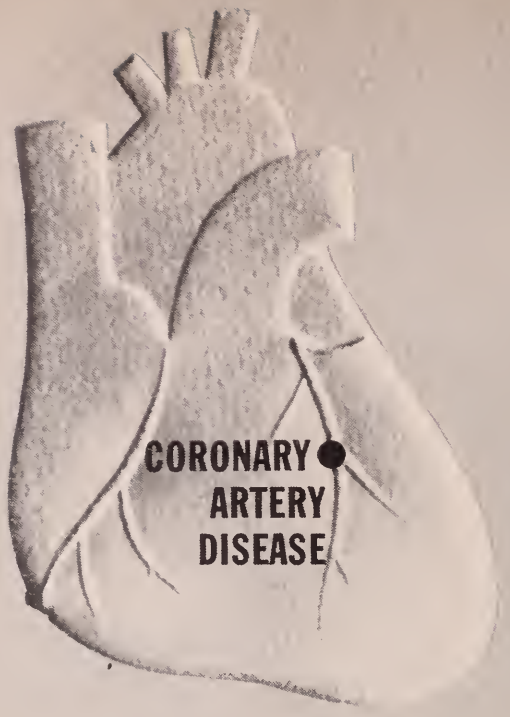
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References: (1) Root, H. F., and Bradley, R. F., in Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: The Treatment of Diabetes Mellitus, ed. 10, Philadelphia, Lea & Febiger, 1959, pp. 411, 437. (2) Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: *ibid.*, pp. 188-189. (3) Marks, H. H., *et al.:* Diabetes 9:500, 1960. (4) Marble, A., in Summary of Conference on Diabetic Retinopathy, Survey Ophth. (Part 2) 6:611-612, 1961.

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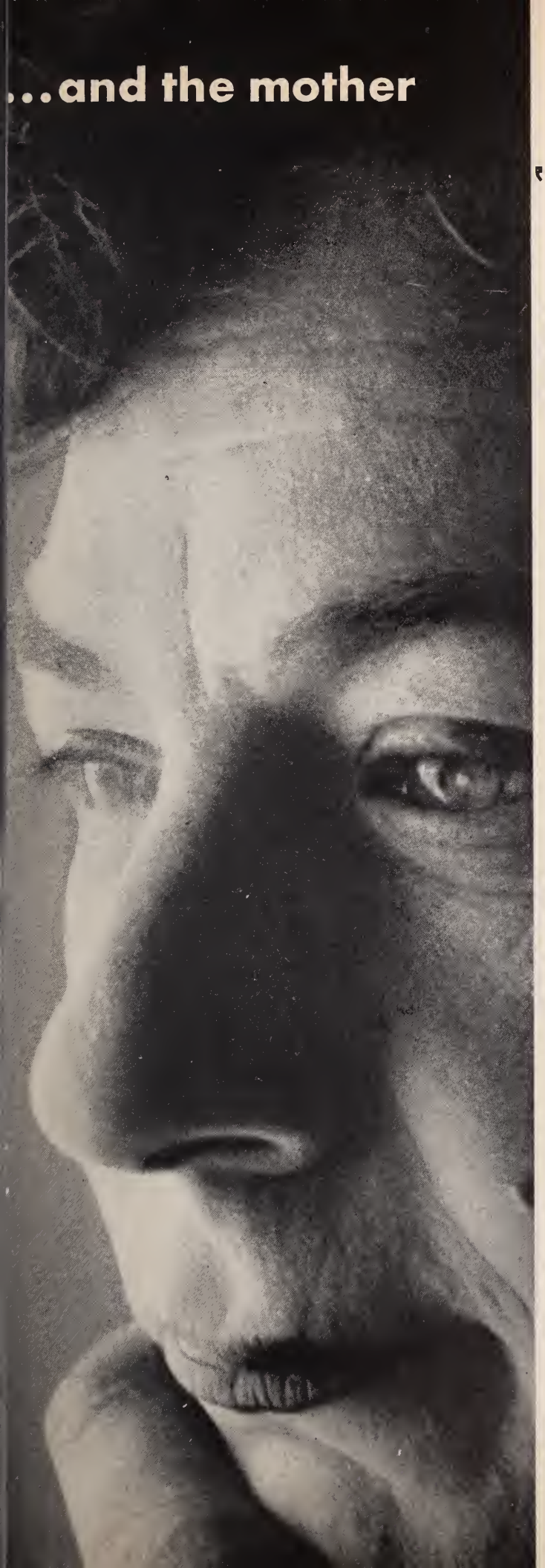
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AS I SEE IT FROM '360'

By Robert L. Richards
Executive Administrator

Illinois Chamber of Commerce Battles Medicare in Washington

Any Organization Supporting its convictions by action deserves high commendation. The Illinois Chamber of Commerce serves as a sterling example. Last May, it sent to Washington a committee of 45 business and professional men to lobby against King-Anderson. The Chamber's action affirms its position against King-Anderson far beyond mere words. Above all, it represents an important force in the continuing campaign against socialized medical legislation.

We congratulate the Chamber on its fine mission, and we take pride that among its committee sent to Washington were three Illinois physicians, Dr. Quentin Reed, Director of the Carbondale Clinic, Dr. Charles A. McClelland, Paris, Illinois, and Dr. Newton DuPuy, ISMS Chairman of the Board.

The well-organized Committee set to work as soon as it arrived in Washington. It was divided into five "teams," each team assigned five Illinois Congressmen and about 20 Senators and Congressmen from other states on key committees. The teams usually called as a group under the leadership of a captain, thus avoiding unnecessary and uncoordinated visits.

The entire Committee had hour-long discussions with Senators Dirksen and Douglas. Special meetings were held with Leslie C. Arends (R. Ill.) Minority Whip Leader of the House, and Congressman Robert F. Griffin (R. Mich.) co-author of the Landrum-Griffin labor bill. At a press luncheon attended by representatives of six Illinois newspapers, the Committee announced its position. It continued the State Chamber's support of Kerr-Mills. On the issue of King-Anderson, the delegation recommended "that the State Chamber continue its program of requesting its members to write Senators Dirksen and Douglas, their own Congressmen and members of the House Ways and Means Committee, voicing opposition to this legislation."

The voice of 45 men making this stand as one will help immeasurably to counter some of the groups in Washington urging enactment of medical care for the aged under Social Security. Once again, our congratulations to the Illinois Chamber of Commerce on its fine action on behalf of American medicine. Their common cause with the Illinois State Medical Society may well represent a stepping stone toward continuing and closer cooperation between our two organizations.



A special formulation for those troublesome cases of acute nonspecific diarrhea

DONNAGEL®-PG

Donnagel® with paregoric equivalent

Provides greater assurance of more comprehensive relief in acute self-limiting diarrheas through the time-tested effectiveness of two outstanding antidiarrheals—DONNAGEL and a paregoric equivalent. *Tastes good, too!*

Each 30 cc. (1 fl. oz.) of DONNAGEL-PG contains:

Powdered opium U.S.P. (equivalent to paregoric 6 ml.)	24.0 mg.
Kaolin	6.0 Gm.
Pectin	142.8 mg.
Natural belladonna alkaloids	
hyoscyamine sulfate	0.1037 mg.
atropine sulfate	0.0194 mg.
hyoscine hydrobromide	0.0065 mg.
Phenobarbital (1/4 gr.)	16.2 mg.

SUPPLIED: Pleasant-tasting banana flavored suspension in bottles of 6 fl. oz.

Also available:

DONNAGEL® with NEOMYCIN — for control of bacterial diarrheas.

DONNAGEL® — the basic formula — when paregoric or an antibiotic is not required.

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Orinase Case History

Orinase dosage



When Mrs. F. G., an actress, was first seen in October, 1956, her diabetes was poorly controlled on diet—symptoms classic, glycosuria 4 plus, fasting blood sugar 170. Control was achieved in 2-3 months on Orinase, 3 and then 1.5 Gm. daily. By January, 1957, fasting blood sugar was 100. Since then, dosage of 1 Gm. a day has routinely maintained control.



On occasion, Mrs. G.'s Orinase requirement may rise temporarily under certain stresses of the theatre. For example, the patient has needed a two-month increase to 3 Gm. daily because of anxiety over a career decision (two roles were offered at the same time).



Indecision once resolved, the control-maintaining Orinase dosage reverts to 1 Gm. daily. This suffices to carry the patient smoothly and comfortably through a fairly energetic program of activity. Besides acting, Mrs. G. directs and produces plays; she looks after the domestic chores of her household and attends classes in the dramatic arts.

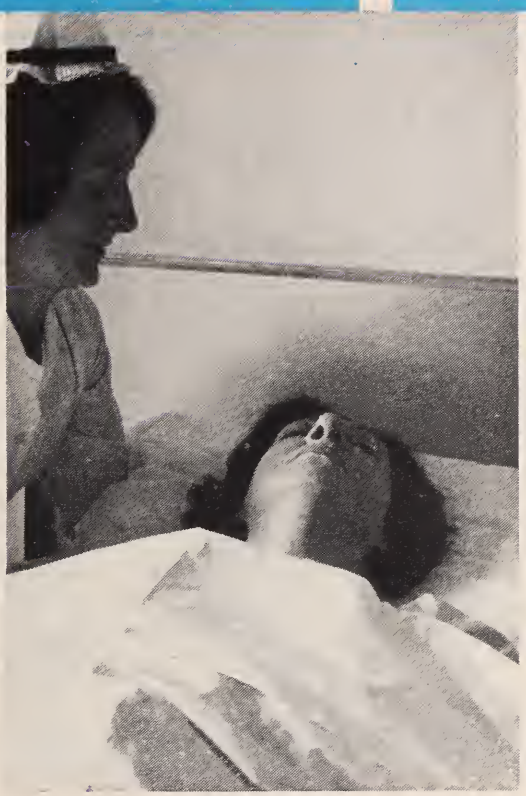
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5 years of control



During an extended trip in 1959, the patient reacted adversely to a severe sunburn. On returning home, Mrs. G. (shown as her husband helps her from their car), required increased Orinase (3 and then 2 Gm. daily) for several months.



When the patient underwent surgery that same year, she was given insulin, 30 units, 2 days preoperatively and 8 days postoperatively. After this 10-day interval, she resumed her usual level of 1 Gm. Orinase daily, and has since then been consistently well managed on that dosage.



Mrs. G. has now been Orinase-treated for 5½ years, living a busy life, with her diabetes controlled and without untoward developments.

Orinase* (tolbutamide) stands in a unique position; it alone, among oral antidiabetes agents, has had five years or more of day-to-day routine clinical use in the hands of thousands of physicians throughout the country. Accordingly, there are by now a considerable number of truly long-term Orinase-treated patients. A series of Orinase five-year case histories has been prepared to illustrate and exemplify some aspects of actual experience in management. Patient data, made available to us by the respective physicians, have been factually incorporated; however, patients' identities have been concealed. Any inquiries regarding this Orinase case history series should be addressed to: Medical Department, The Upjohn Company, Kalamazoo, Michigan.

Orinase is supplied in bottles of 50 and 200 tablets.
Each tablet contains: Tolbutamide . . . 0.5 Gm.
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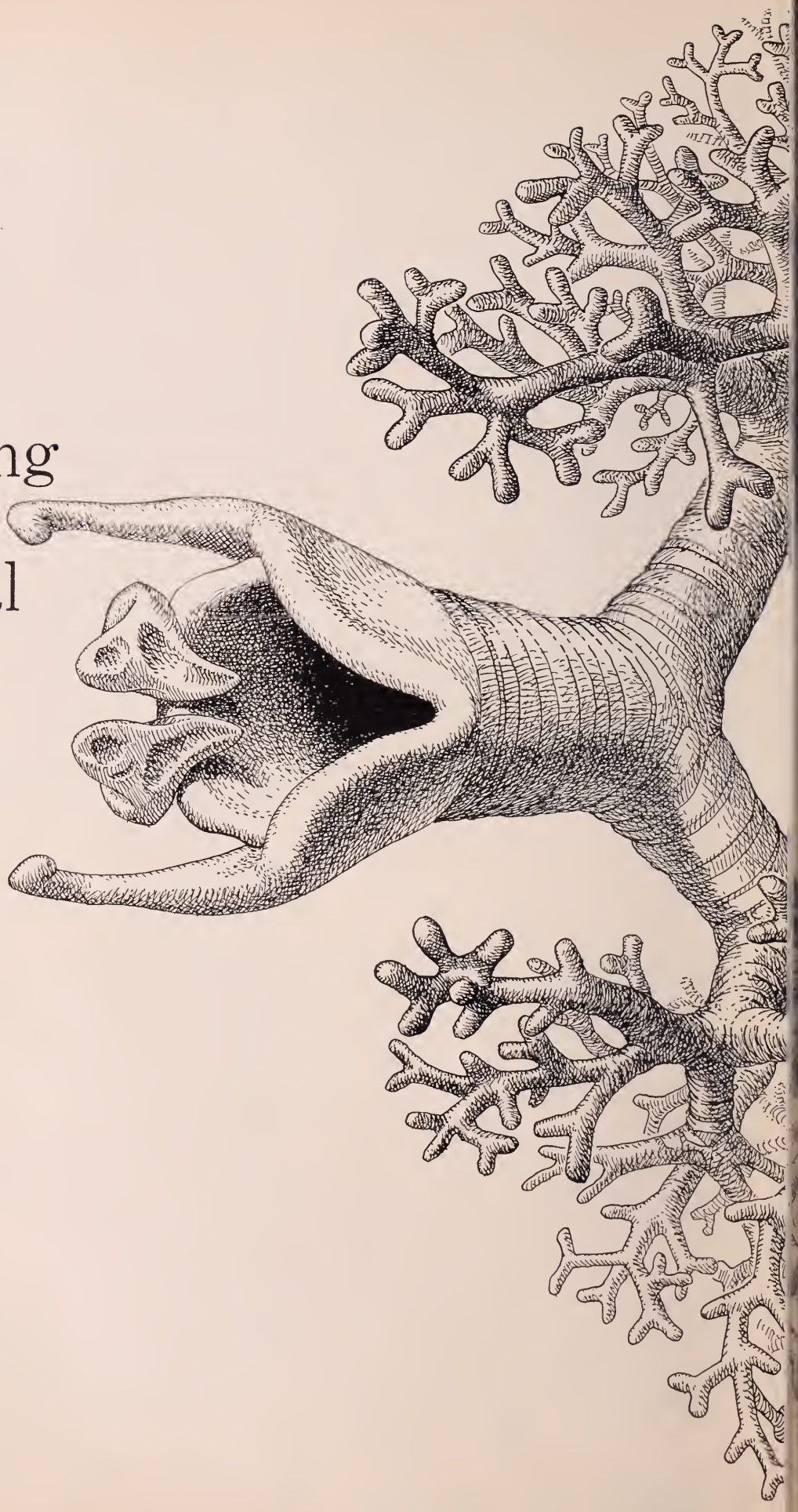
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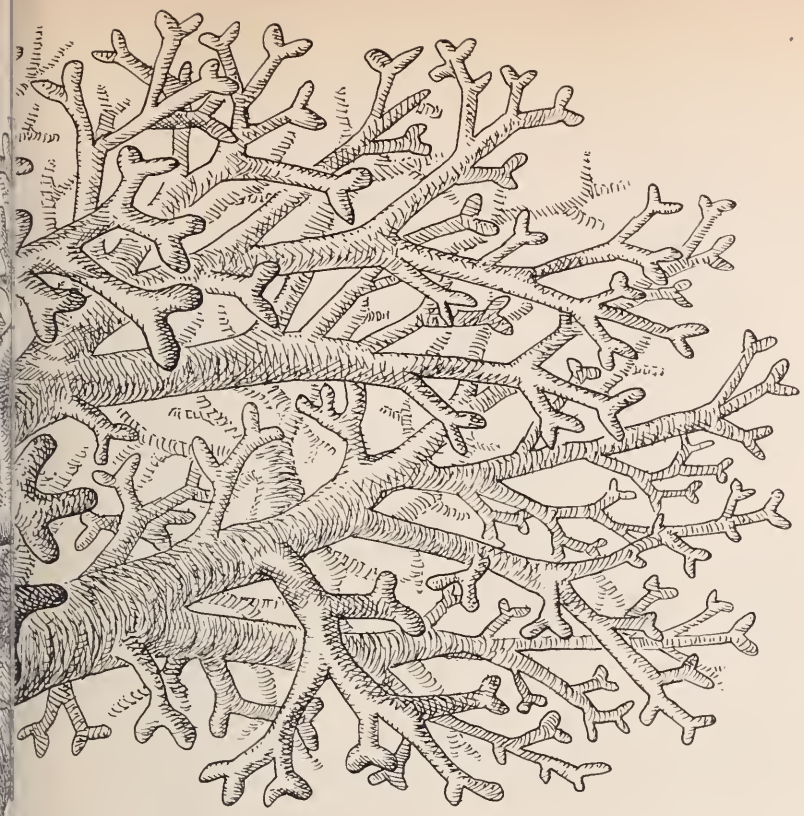
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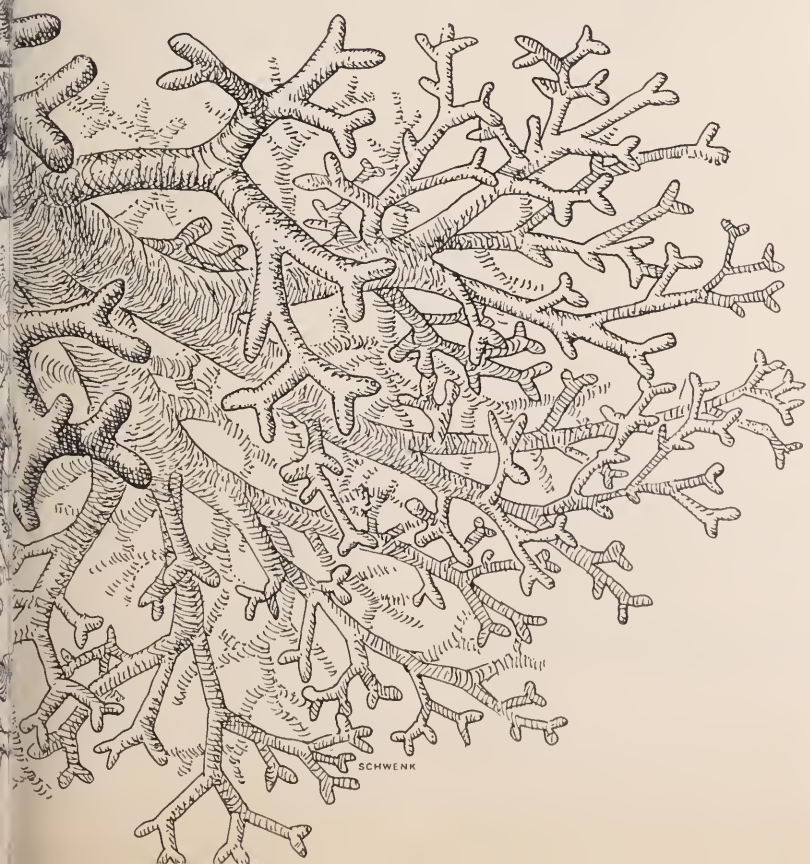




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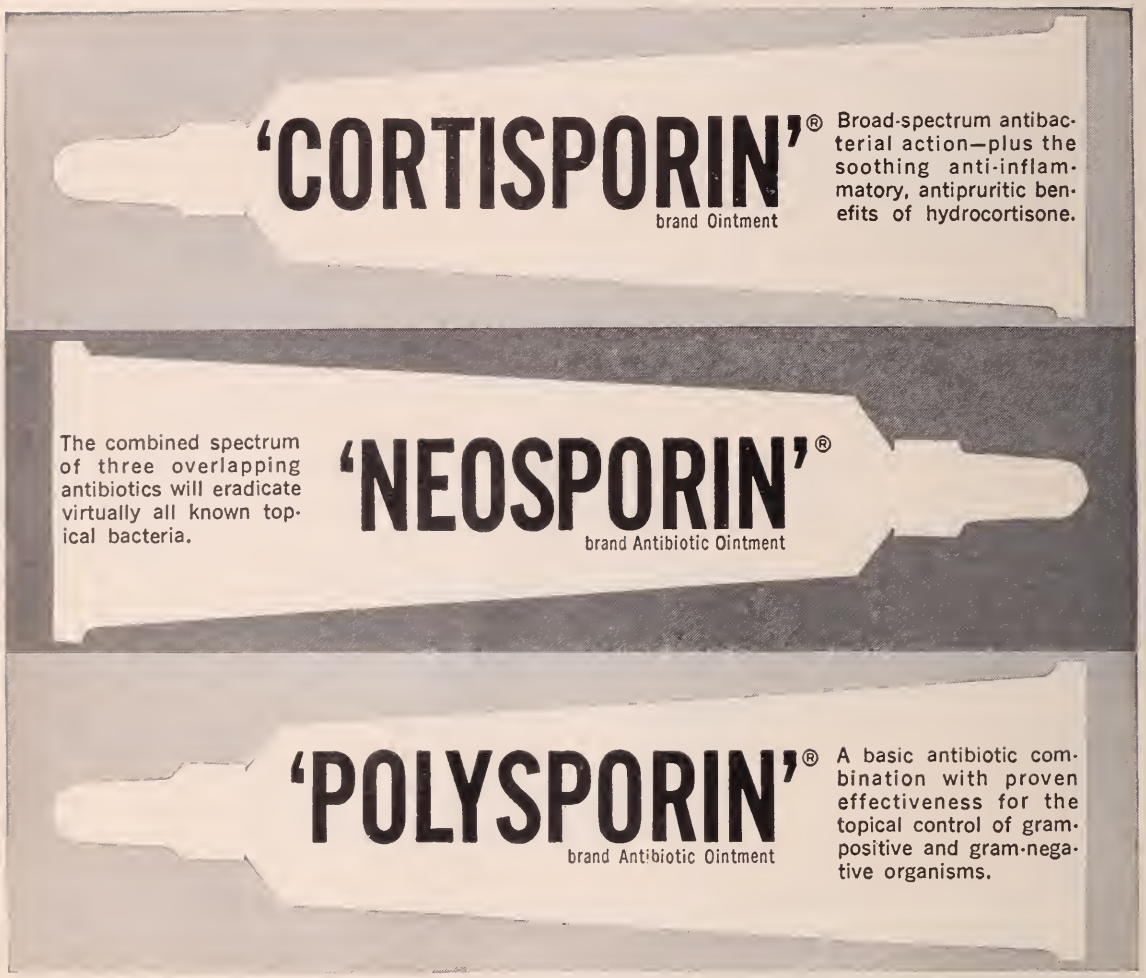
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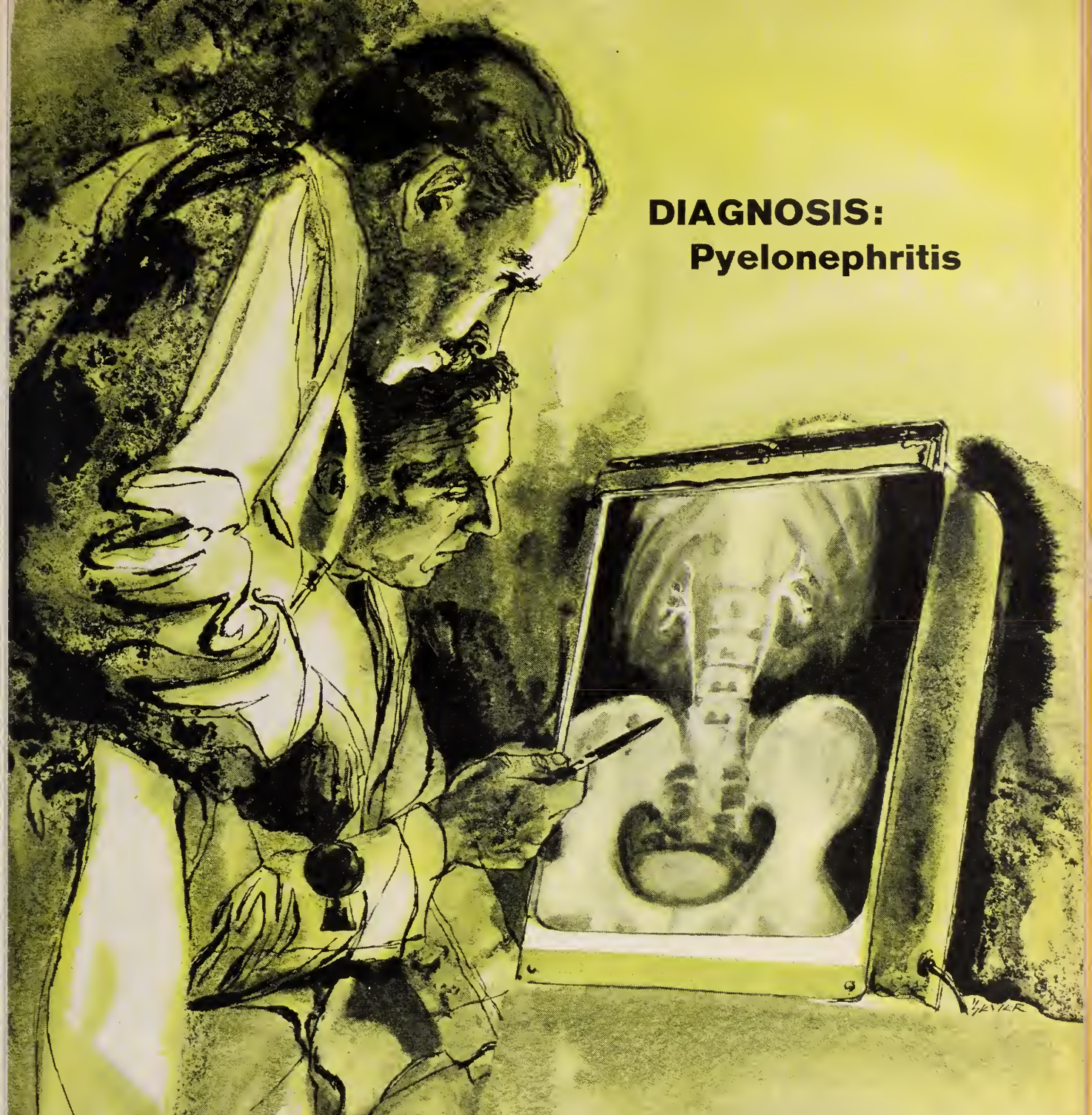
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Neo-Medrol Acetate, Veriderm and Medrol Acetate, Veriderm provide prompt, highly-efficient control of dermatoses. Because the Veriderm base duplicates the oils found in normal human skin, there is optimal dispersion of the anti-inflammatory Medrol content, and the antibiotic, neomycin.

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Medrol Acetate, Veriderm is indicated in atopic, contact, or seborrheic dermatitis, and in neurodermatitis, anogenital and allergic pruritus. Neo-Medrol Acetate, Veriderm is indicated when dermatoses are complicated by infection. Prompt control of excessive tissue reaction to allergens, irritants, and trauma may be anticipated following the topical use of Medrol.

Neo-Medrol* **Veriderm****

Acetate

The Upjohn Company, Kalamazoo, Michigan **Upjohn**

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1. Borota, A., and Grinell, R.N.: J. Amer. Geriatrics Soc., 10:413, 1962.
2. Spoor, H. J.: N.Y. State J.M. 58:3292, 1958.
3. Lubowe, I. I.: Western Med. 1:45, 1960.
4. Weissberg, G.: Clin. Med. 7:1161, 1960.



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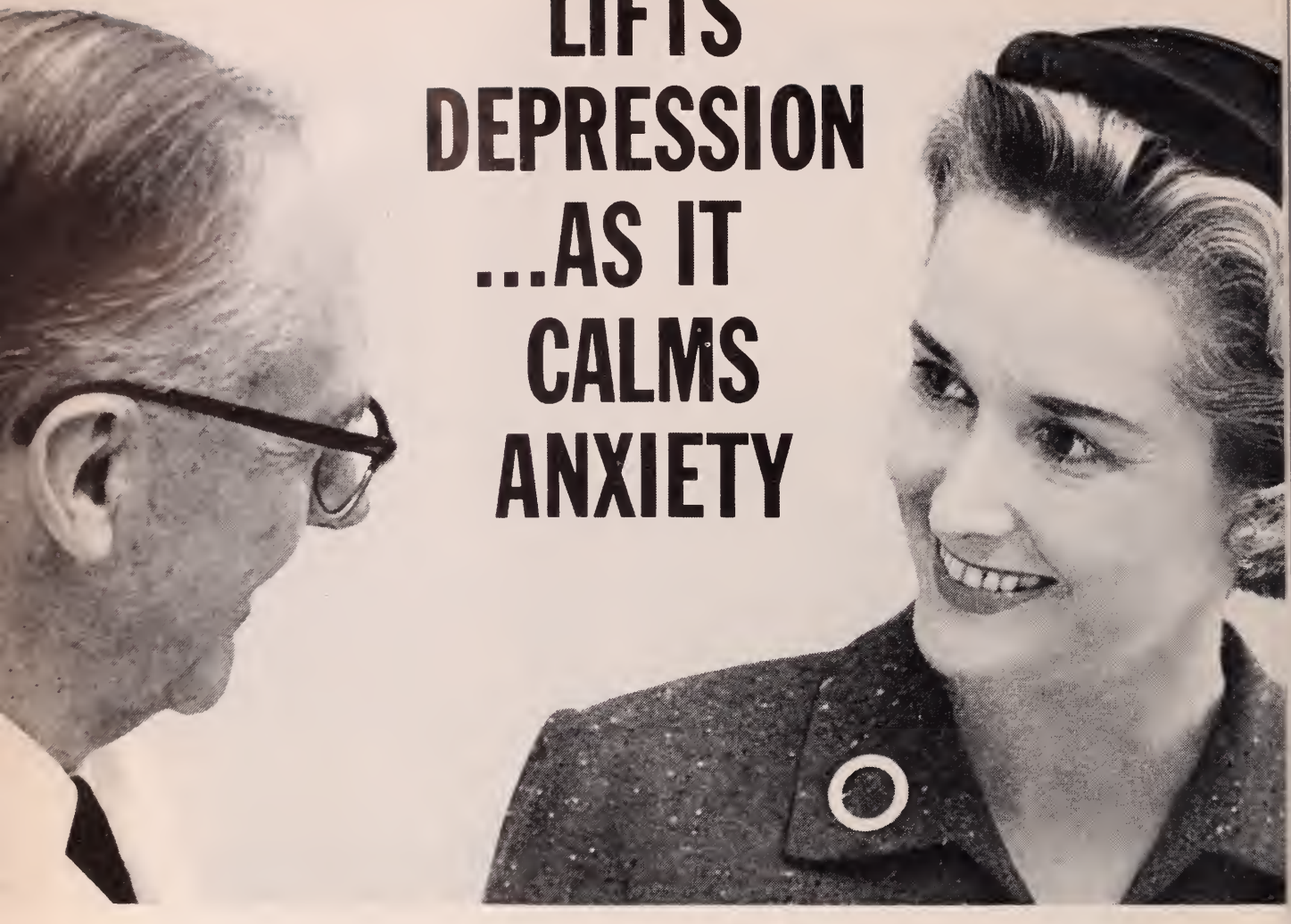
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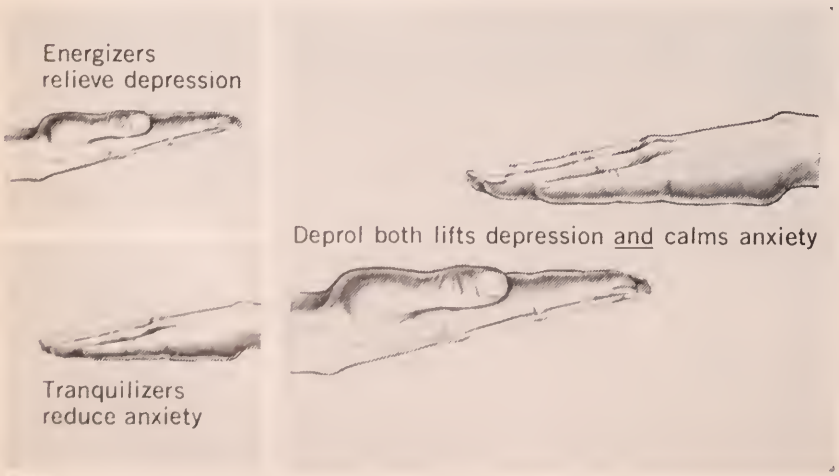
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Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

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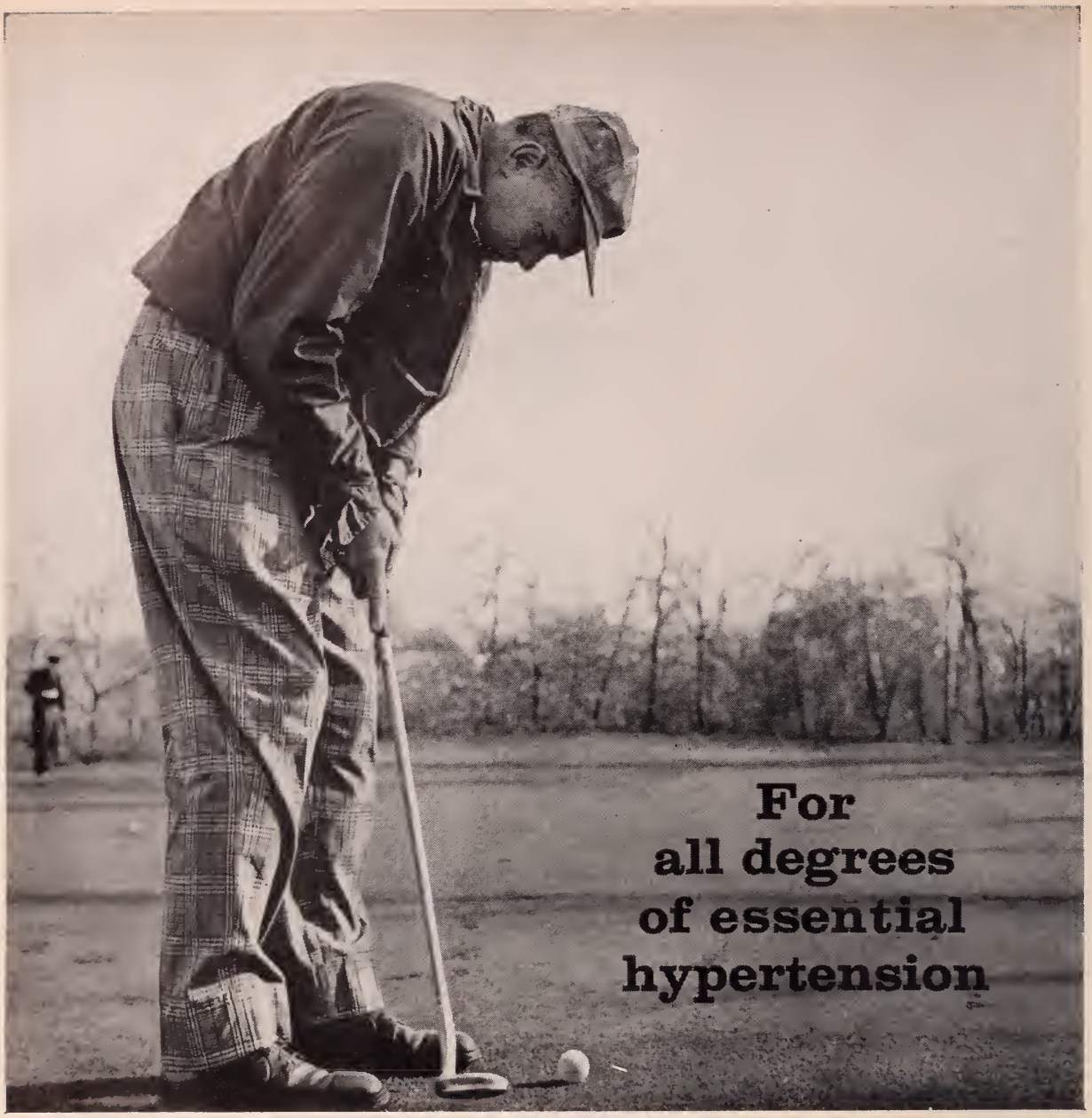
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†Hutchison J. C.: Current Therap. Res. 2:487 (Oct.) 1960.

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—Gray, H. R., Wolf, R. L., and Doneff, R. H.: Evaluation of Flurandrenolone, a New Topical Corticosteroid, Arch. Dermat., *84:*18, 1961.

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The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

Volume 122, No. 1 July, 1962

SPECIAL SECTION

Obstetrics and Gynecology

This month the Illinois Medical Journal departs from its usual editorial policy to present, on pages 30-42, three consecutive articles dealing with the specialty of obstetrics-gynecology. The importance and recency of these papers, as well as the applicability to general practice of the techniques they describe, warrant this special presentation.

Some Practical Aspects in Management of the Infertile Couple

Melvin R. Cohen, M.D., *Chicago*

Recently a 29-Year-Old Woman consulted me for premarital examination and counseling. She was attractive, came from a good family, and was planning to marry an older man, a very successful investment counsellor. She requested birth control on the basis of the "world population explosion." I stated that fine, intelligent people should reproduce, and that even in countries where over-population was of tremendous importance, as in India and Japan, the ten per cent or so of the population who had problems in reproduction demanded medical help. I urged that she not postpone her family until such a time when there would be an even higher incidence of involuntary childlessness. In their age group birth control should be practiced only briefly until the couple begin to know each other and are secure in their marriage. After birth control measures are discontinued, they should not expect conception to occur immediately. It is not at all unusual for an apparently normal couple having coitus regularly to find that six months to several years elapse before conception occurs. Thus, in this premarital interview, I was already counselling the potentially infertile female.

Management of the Infertile Couple

Management of the young married couple with a brief history of infertility need not be elaborate. However, even in this group an adequate history and physical examination (including genital examination) are important. Routine workup consists of semen analysis, tubal patency, the Sims-Huhner postcoital test, and the basal body temperature (B.B.T.) curve for evidence of ovulation.

Couples over thirty years of age or those of any age with three or more years of infertility, require a more exacting workup. This includes daily ovulation studies, in which the wife is instructed to take her basal body temperature (rectally if possible) each morning before arising. Temperature-taking regimen should begin shortly after a menstrual period and continue daily until the next menstruation ensues. The wife also is instructed to report to the office daily for detection of mucorrhea and for postcoital evaluation. Figure 1 graphically demonstrates the clinical criteria for ovulation.

Ovulation not infrequently occurs with atypical B.B.T. temperature graphs and absence of, or poor, cervical mucorrhea and Spinnbarkeit.[1] Endometrial biopsy showing secretion in the gland lumina indicates that ovulation probably has taken place, but does not indicate the time of ovulation except in retrospect.

Small quantities of pregnanediol may begin to appear in the urine prior to ovulation, but it is chiefly found there during the premenstrual phase of the cycle.

Ovulation can occur with poor corpus luteum function, as indicated by:

1. Short or atypical diphasic curves on the basal body temperature chart;
2. Endometrial biopsy showing poor secretory function, or
3. Diminished pregnanediol excretion.

From the Division of Obstetrics and Gynecology and the Department for Research in Human Reproduction, Michael Reese Hospital, Chicago.

From a talk delivered before the fifteenth annual Illinois Obstetrical and Gynecological Society Meeting, Chicago, May 14, 1962.

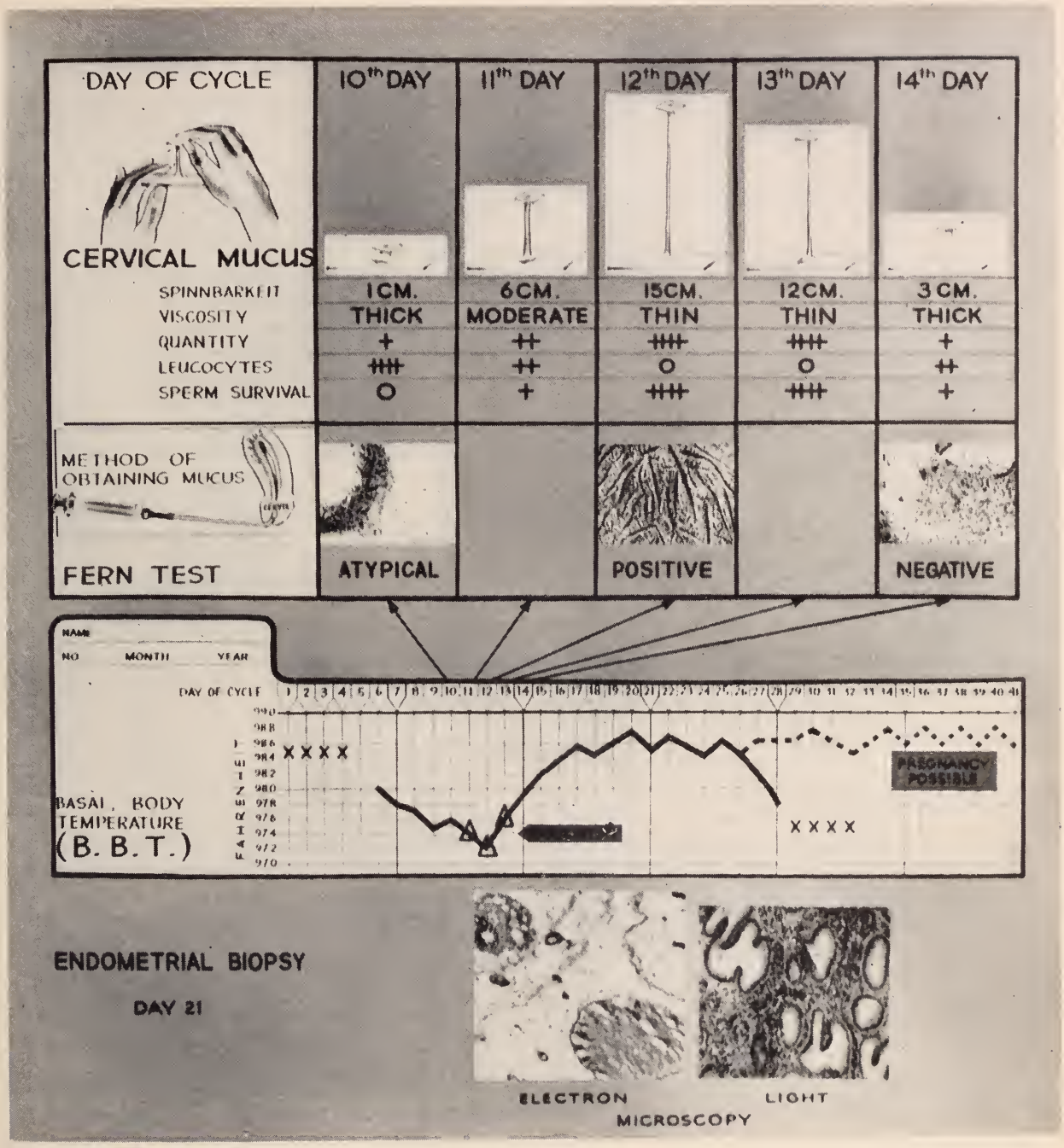


FIGURE 1. Clinical criteria of ovulation.

Culdoscopy

After the time of ovulation has been diagnosed by one of the techniques described, culdoscopy,[2] or transvaginal peritoneoscopy can be scheduled. This diagnostic procedure, introduced by Alfred Decker, has become a valuable addition in the survey of the difficult infertile couple. It has made possible demonstration of, or failure of, ovulation. This procedure has been invaluable whenever the usual criteria of ovulation were atypical or absent. Culdoscopy is valuable also to establish the presence or absence of peritubal and periovarian adhesions, fibroids, endometriosis, and other barriers to fertility.

In the management of the infertile couple, culdoscopy is usually a final procedure useful in ruling out obscure pelvic pathology. Certainly for the women who have undergone

an otherwise exhaustive survey, culdoscopy can be of paramount importance in determining whether they should continue treatment, institute adoption proceedings, or reconcile themselves to a childless marriage. In the older age group, culdoscopy has been used as a means of very rapid survey in order to conserve time. Frequently, a final prognosis can be given after this examination.

Pneumoperitoneum

Should culdoscopy be contraindicated due to the presence of a fixed retroversion, a mass in the cul-de-sac, or extensive pelvic surgery, pneumoperitoneum[3] frequently can be employed. This is a method of silhouetting the female organs on x-ray by means of carbon dioxide. It may be combined with opaque media, such a combined procedure being called complete gynecography by Stein. This technique is quite useful in delineating ovarian cysts, fibroids and other intrapelvic pathology. Much more information can be obtained by the addition of carbon dioxide gas to the standard hysterosalpingogram.

The Infertile Female

Treatment in the female depends on improvement in general hygienic and nutritional factors, as well as correction of abnormal cervical, uterine, tubal or ovarian factors. The diagnostic survey in itself is therapeutic, and many women will conceive during this survey. Especially significant is the patient who will conceive after improvement of the cervical factor or after tubal patency tests.

Artificial Insemination

Artificial insemination may be divided into heterologous or donor insemination and homologous or husband insemination.

Heterologous insemination, where no religious prohibition exists, is indicated in 1) absolute male sterility; 2) severe hereditary defects in the male, and 3) incompatibilities of blood type, both RH and A B O, with sensitization.

Homologous insemination is indicated when there is faulty transmission of spermatozoa from the male to the female, due to impotence or premature ejaculation. It is also indicated when there is a severe cervical factor precluding sperm migration into the uterus. With the former fault, simple vaginal or cervical insemination is therapeutic, but in the presence of a severe cervical factor, intrauterine insemination is needed. Our technique for intrauterine insemination is as follows:

A masturbatory specimen is obtained in a sterile container. The specimen, after liquefaction, is drawn into a tuberculin syringe to which is attached a needle and a fine plastic tube about 6 cm. in length. The plastic tube is gently inserted into the uterus just beyond the internal os and approximately 0.1 c.c. of semen is injected. Although we realize that semen obtained under such sterile precautions is not sterile, we have not had febrile complications with this technique. We are very careful, however, to inject no more than a very small quantity of semen.

The following case report will illustrate the management of the severe cervical factor:

Case Report

This couple was first seen on October 23, 1959. The wife was thirty and the husband was thirty-two years of age and neither had a prior marriage. They were married for nine years and birth control had never been practiced. Menses were regular every 20 to 30 days and essentially normal. Prior workup had consisted of basal body temperature curves showing a diphasic chart and a thermal shift from day 12 to day 18. Semen analysis had been reported as healthy.

The pelvic examination disclosed a retroverted uterus and adnexae indefinite to palpation. The cervix was clean and dry. Transuterine pneumoperitoneum silhouetted a normal uterus and normal adnexae. During this procedure the carbon dioxide gas was instilled through the uterus at rather high pressures from 190 to 160 mm. of mercury. Iodized oil instilled at the same time disclosed a normal uterine cavity.

Semen analysis disclosed a volume of 2.5 c.c. of concentrated spermatozoa, 363,000,000 per c.c. with only 15% showing good motility. Morphology revealed 37% normal.

Ovulation timing studies disclosed that during the period of ovulation, cervical mucus was scanty and thick. Endometrial biopsy disclosed a secretory endometrium. The following month a further study of ovulation time confirmed the fact that the cervical secretions at the time of ovulation were hostile, and culdoscopy performed on day 17 of a 32 day cycle showed a normal intrapelvic status and a recent corpus hemorrhagicum.

Therapy with an oral estrogen improved her cervical

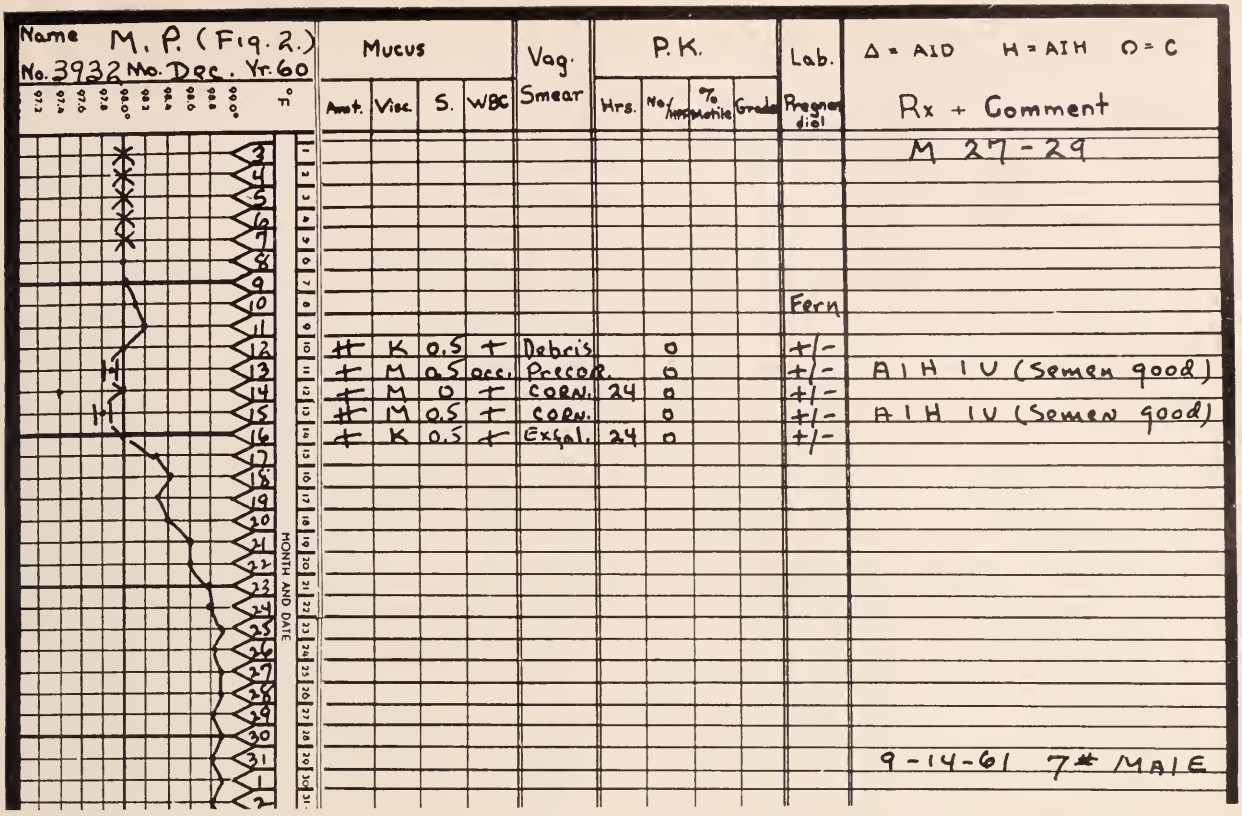


FIGURE 2. Patient #3932 — Ovulation Record.

H at days 11 and 13 under *Rectal* B.B.T. denoted husband insemination.

Mucus is described as to *Amount* (1 plus to 4 plus).

Viscosity (K, thick; M, moderate; T, thin).

Spinnbarkeit (S) (centimeters).

Number of WBC (1 plus equals 25% of high-power field; 4 plus equals h.p.f. covered; numbers equals number per h.p.f.).

Vaginal Smear is indicated as cornified, precornified, exfoliative or debris.

P.K. denotes post-insemination examination of mucus (Sims-Huhner Test).

Fern reaction is indicated as positive, negative or atypical plus/minus.

A.I.H., I. U., denoted artificial insemination husband intrauterine.

mucus, but she failed to conceive. Homologous insemination was therefore performed during four consecutive months.

Figure 2 shows the record of this patient. Note that on the successful month, homologous insemination was performed on day 11 and day 13. Because of the hostile mucus, the intrauterine technique of homologous insemination was utilized. She delivered at term on September 12, 1961.

Discussion

The diagnostic workup will delete a small group of patients in whom the prognosis is quite poor. A second large group of couples with essentially normal findings perhaps need reassurance and time for conception to occur. A third group of patients will require treatment of the male, female or both. Many times we are at a loss to explain the infertility or even what cured the infertility when conception finally occurs. In evaluation of results the following classification is suggested:

1. The patient who is already pregnant when first seen. The female with grossly irregular menstrual periods is frequently infertile. She may seek consultation during a period of amenorrhea and it is important to determine whether such a patient is pregnant. I have observed many patients in whom careful follow-up with the basal body temperature curve demonstrated that they were already pregnant when first observed. It is important not to do any diagnostic workup whenever a suspicion of pregnancy may be present inasmuch as an early undiagnosed pregnancy could be aborted unintentionally.

2. Pregnancy resulting from improvement in semen quality. Semen analysis may show great variations from time to time in both the fertile and infertile male. Therefore, it is difficult to evaluate the *in vitro* results of treatment. Also both the male and the female may be under investigation and treatment simultaneously when conception occurs. Often the urologist, psychiatrist, and gynecologist will claim credit when conception occurs.

3. The third category is those patients who become pregnant during their diagnostic work-up. Iodized oil studies have proven especially significant and many patients will conceive either during the month of such study or the following month.

4. The fourth category is patients who become pregnant during careful ovulation timing. This includes patients in whom timed coitus has been fruitful as well as those special patients in whom husband insemination or donor insemination is required.

5. This category includes patients with failure of ovulation and luteal phase defects. This is a difficult group to treat medically, but sometimes results follow therapy with the corticoids, human chorionic gonadotrophin, progestogens, human pituitary extract[4] or clomiphene citrate.[5,6]

6. Surgical procedures in the female are more rarely indicated. These include lysis of pelvic adhesions, tuboplasty, multiple myomectomy and ovarian resection for the Stein-Leventhal syndrome or endometriosis.

7. Emotional factors play a vast role in the infertile couple. They are difficult to delineate clearly for adequate therapy.

8. The last category is the factor of time. We must remember that spontaneous conceptions do occur. Many of these are unexplained and even unexpected, especially when a poor prognosis had been given. Remember, vacations are important. It is important to interrupt the survey and treatment from time to time. In the same category must be included patients who conceive post-adoption.

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Breast Feeding a Birthright?

During my lifetime, I have seen a changing pattern, not merely in infant care, but also in the social climate, with repercussions in every aspect of life. Not the least interesting point, and from our point of view a very germane consideration, is the modern cult of the breast—the "Great American Discovery"—the breast being viewed, not as an organ of utility, but one of decoration. The reality to those who scan the daily Press, view the pictures, and listen to gossip is very apparent. The search for breast perfection in a decorative sense has become a major problem.

At first thought the cult of the breast might seem a whim of fashion which has little significance, but unfortunately this is not the case. The cult of the bottle deprives the infant, not only of his human proteins, fats and salts, but also of that feeling of primal security which is the birthright of every infant. There is a wealth of evidence that early insecurity has far-reaching consequences. The large-scale abandonment of breast feeding—the so-called "freedom from breast feeding"—has contributed to the extraordinary trend towards nomadism. Babies go everywhere, the parents imagining that bottle feeding makes travel easier, though in reality it is much easier to travel with a breast-fed baby.

These thoughts raise a very pertinent question—is there a relationship between the conduct meted out to infants and changes in life slant? Is infancy of greater importance than we thought? Have we progressed too far, or rather deviated too far, from the evolutionary pathway? Should we retrace some of our steps? *P. A. Earnshaw, M.B. The Baby's Birthright: A Plea for a Return to Exterior Gestation and Breast Feeding. M. J. Australia. February 18, 1961.*

Routine Vaginal Examinations During Labor: Comparative Study With Bacteriologic Analysis

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The Principles of Avoiding the genital tract during labor apparently became engrained in medical thinking over the years. In 1924, Reis showed that vaginal examination did not increase puerperal morbidity; however, his work was disregarded. Prystowsky in 1954 and Fara and his group in 1956 again showed that routine vaginal examination during labor did not increase the risk of infection to the patient; yet rectal, not vaginal, examination is still standard practice in many hospitals.

Therefore, it was with some trepidation that we were stimulated to challenge our traditional reluctance to invade the genital canal. The advantages of this route and our success with the early cases finally encouraged us to the point where vaginal examination has been the routine method of following patients in labor at USAF Hospital Andrews since 1957. No special precautions were taken with these examinations and they have been performed by nurses and doctors alike, without restriction. We had no reason to question this decision — until we became the unwilling hosts of staphylococci. When this happened we wondered whether vaginal examinations were playing a part. Bacteriologic studies performed when we set about to answer the question form the basis of this study.

Method

Data for this study were obtained from 735 patients delivered at USAF Hospital Andrews from June 15 through December 15, 1961. Vaginal cultures were taken on these patients, and complete data for analysis were available from all of them. Those patients arriving in the same interim who either were delivered, ready for delivery, or bleeding heavily were excluded, as were a few whose cultures were lost or who were discharged early from the hospital.

An attempt was made to alternate the routes of examination; however, the nursing and physician staffs preferred the vaginal route, accounting for the fact that there are 435 patients in the vaginal series as opposed to 288 in the rectal series.

On admission to the labor suite a culture was taken on each patient prior to other procedure. This culture as well as all succeeding cultures was taken by depressing the posterior vaginal wall with two fingers, (using a sterile glove), and inserting a sterile swab to the posterior fornix. Special care was taken to avoid contact with the lower vagina. The swab then was placed in a culture media and refrigerated.

In the bacteriology laboratory a tri-plate containing 5% sheep blood agar, mannitol salt agar and eosin methylene blue agar was inoculated. Following incubation, results were interpreted and those plates with *E. coli* were submitted for sero-typing. All cultures of penicillin-resistant coagulase positive staphylococcus were phage typed in an effort to determine not only the incidence of this dangerous organism, but the types encountered.

Following the admission culture the patient was prepared for labor in the usual manner. Although her progress during labor was followed mainly by the nursing personnel, she was also checked by the interns or general practice residents, as well as the staff physicians. The

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type of examination was determined by the nurse on duty, ostensibly on an alternative basis, and no restrictions were imposed as to number. Whenever a vaginal examination was performed the vulva was swiped downward with a zephiran-soaked sponge, and the examination performed with a sterile glove. Rectal examination was done in the usual manner.

At delivery the patient was prepared for vaginal examinations using povidone-iodine (Betadine®). Following delivery she was kept in the hospital at least three days, generally four days, and the temperature taken orally four times daily. If discharged before five full postpartum days the patient was given a temperature sheet dated through the fifth postpartum day and requested to take her temperature at designated times, four times daily, and return it in a self-addressed envelope.

During her postpartum course another culture was taken on the morning of the first and third days after delivery. Antibiotics were withheld in the absence of a specific problem except in the case of prolonged rupture of the membranes. This occurred in about one-third of these patients, who then were often given antibiotics prophylactically during labor and the puerperium.

Material

The rectal group had a slightly higher incidence of primiparas — 36 per cent vs. 29 per cent — and a lower incidence of multiparas (para three and over) — 14 per cent vs. 23 per cent.

Each series was divided into three parts depending upon the rank of the patient's husband. As every service family's economic status can generally be determined by the husband's rank, the patient's dietary habits and other privileges may be roughly grouped in this manner. This data was compiled in an attempt to compensate, to some degree, for the lack of information on the racial distribution in this study. The rectal series showed a slightly higher incidence of enlisted men's wives and a lower incidence of wives of non-commissioned officers. The officer group was roughly equal in each series.

If an examination is dangerous, then theoretically the larger the number performed the greater the potential danger. The number of examinations in each series was divided into groups of 1-6, 7-11, 12-17 and 18 and over.

There was a slightly higher overall incidence of examinations in the vaginal series. These figures substantiate the lack of restriction placed on the number of examinations. The largest number of examinations in either series occurred in one patient in the vaginal group who was examined 30 times.

Of particular interest is the 3 per cent of patients in the rectal series who were changed to the vaginal series to obtain more accurate information. These have been included in the vaginal group because the birth canal was invaded by the examining glove.

Fara, in his study, demonstrated a two-fold increase in puerperal morbidity when an episiotomy was performed. In the present study the episiotomy rate was 83 per cent in the vaginal series and 81.2 per cent in the rectal series, compared with Fara's 39 per cent or Prystkowsky's 68 per cent episiotomy rate. The forceps incidence in the present study (64.2 per cent in the vaginal, 65.9 per cent in the rectal series) is also greater than that reported in other studies.

The 5 per cent incidence of extensions or lacerations in this study was higher than desirable, one of the consequences of an intern-and-resident training program.

In spite of the fact that this study was based on consecutive patients, the preceding data reveals that the similiarity between the study groups is close enough to permit reasonably valid comparisons. In addition, the dangers inherent in selection of cases have been avoided.

Prior investigations into the place of routine vaginal examinations during labor have based their evaluation on the subsequent incidence of complications and morbidity during the puerperium. Although these reports have been few in number, they have failed to show any higher incidence than is seen following rectal examinations. Nonetheless, one is confronted with the disturbing thought that routine vaginal examinations do in fact contaminate the birth canal and that lack of complications is dependent upon, and the result of, local resistance rather than the safety of the technique.

The answer to this may lay in base-lining the bacterial flora of the vaginal canal and then determining if vaginal examinations produced any significant changes not seen when the pa-

tient was examined rectally. In the present series those patients electively sectioned were studied as a control to see if either type of examination created any special type of hazard. Our investigations were directed mainly toward organisms of enteric origin, for if one expects vaginal contamination to occur, the anal area would be the most likely source and enteric organisms the most likely offenders. For this reason no efforts were made to subdivide those classified as streptococci and they were grouped under the broad heading of other enteric organisms. Others grouped under this general heading included the various species of proteus, aerobacter, and pseudomonas. No attempt was made to hold the culture plates long enough to accurately assess the incidence of the candidia species, as this was not considered pertinent to the study.

Results

Only 29 per cent of the admission cultures could be classified as essentially negative, i.e., contained no growth or produced *Staph. epidermis* which is considered to be a saphrophyte. The realization that 71 per cent of our patients harbored potentially pathological organisms as they came to us for delivery made us wonder if we were overlooking a number of vaginal infections. Patients were accordingly questioned as to whether they had an irritating discharge or symptoms suggestive of vaginitis. Not only was the overall incidence reasonably low, using these criteria, but the percentage of essentially negative cultures and the incidence of each group of potentially pathologic organisms roughly paralleled the overall culture findings on admission.

Those patients with essentially negative cultures on admission are an ideal group in which to evaluate the effects of routine vaginal examinations. Puerperal culture data in this group showed that of the 120 examined vaginally, 40 per cent were negative after 24 hours and only 30 per cent were negative 72 hours after delivery. Of the 91 in this group examined rectally, 36 per cent were still negative after 24 hours and only 22 per cent were negative 72 hours after delivery. Both patients who were sectioned developed positive cultures within 24 hours.

The effect of the type of examination may be analyzed from another direction. In the group of patients with positive cultures on admission, 5.7 per cent of the 315 examined vaginally and 8.1 per cent of the 197 examined rectally became negative after examination. None of these patients were given antibiotics. All nine patients in the section series maintained positive cultures after delivery.

Investigating the possibilities that vaginal examination might play a role altering the bacterial flora, those with positive admission cultures were studied as to the fate of the organism found on admission. As the result, 52.8 per cent of the 299 in the vaginal series, 52.1 per cent of the 194 in the rectal series, and 66.6 per cent of 9 in the section series demonstrated the same organism in all three cultures. There are many sub-species of each organism; however, it was beyond the scope of this study to identify them by elaborate bacteriologic investigation. Yet, in an effort to obtain a hint as to whether these were likely to be identical organisms, sero-typing of all those showing *E. coli* was carried out. This portion of the study, along with the results of phage typing of coagulase positive staphylococci, revealed only one instance wherein the same strain was present in more than one culture. This finding suggests the possibility of varying strains of the same organism in these three cultures. Perhaps of greater importance is the impression that the puerperal vagina is host to a changing bacterial flora.

Although vaginal examination may be done routinely in uncomplicated cases, some feel that rectal examination is preferable in the presence of prolonged rupture of the membranes. One wonders whether these cases present any unusual features bacteriologically. Of the 68 patients whose memberanes were ruptured for more than 12 hours prior to delivery, 22.7 per cent of the 44 in the vaginal group and 37.5 per cent of those in the rectal group had essentially negative cultures on admission. These figures are similar to the incidence of negative cultures in each series as a whole. Four of these in the vaginal group, who were positive on admission, became negative without antibiotics, whereas none became negative in the rectal group.

Summary

From the bacteriologic data presented it is apparent that 1) the vagina at term is host to a reasonably high incidence of potentially pathological organisms; 2) following delivery this incidenee increases and potentially pathologic bacteria can be cultured from approximately 87 per cent of patients; 3) the baeterial flora during the puerperium is apparently eharacterized by its variability rather than by its uniformity; and 4) these findings are essentially the same regardless of whether the patient was examined vaginally or rectally, or delivered by section without any examination.

Morbidity

Three criteria of morbidity were used: 1) *the standard definition* — a temperature of 100.4 F. on any two days exclusive of the first 24 hours; 2) *hundred degree morbidity* — wherein temperature of 100.0 F. was recorded on any two days, exclusive of the first 24 hours; and 3) *one day fevers* — wherein the temperature teached 100.0 F. on any two occasions on the same day. Data were not kept on patients with temperatures reaching 100.0 F. at any time during the first five puerperal days, although this would have been more inelusive.

The effort to follow eaeh patient for five full postpartum days was accomplished by hospitalization when feasible, although a lack of adequate postpartum beds often made it impossible to retain patients as long as desired. In these instances temperatures were reeorded at home for the remainder of the five-day period and then returned to the office. In this manner it was possible to follow 84 per cent of the vaginal and 81 per cent of the rectal series for four days and 62 per cent of the vaginal and 57 per cent of the rectal series for five full days.

Using the standard definition, 1.2 per cent of the vaginal and 0.3 per cent of the rectal series were morbid, a difference that is not statistically significant. By the hundred degree criteria 1.6 per cent of the vaginal and 1.7 per cent of the rectal series were morbid. The morbidity of the total study group, using the standard definition, was 0.9 per cent.

Only a little over one-third of patients in each series were treated because of their fever. In the remaining cases there either were no findings or findings were inadequate for diagnosis and aecordingly no treatment was given. In spite of this none of these patients subsequently developed infection or continued to be febrile. Those in the amnionitis/endometritis group were febrile on admission and one had ruptured membranes for four days.

Although the incidence of febrile response and infections is low in this study it would not appear that this was the result of using antibiotics. Only 7.5 per cent of the total vaginal series were given antibioties and 42 per eent of these were for premature rupture of the membranes. Of the total rectal series, 7.3 per cent received antibiotics, 38 per cent of these for premature rupture of the membranes. Several patients in both series reeeived prophylactic antibiotics because of a history of rheumatic heart disease.

The number of examinations did not seem to effect the morbidity; there was an average of 8.5 in the vaginal and an average of 6 examinations in the rectal series. Only two patients in the entire group had more than 12 examinations and both of these were in the vaginal series. An effort was made to analyze the culture data in those eases elassified as morbid; however, no significant findings were noted.

Conclusions

On the basis of the bacteriologic and morbidity data presented it would appear that these dangers are either no longer existent or have been overemphasized. No evidence has been uncovered to support the eontention that rectal examinations are any safer than routine vaginal examination — and they certainly are more uncomfortable. Thus we may conclude that routine vaginal examinations during labor can be performed with safety to the patient.

Acknowledgement

Grateful appreciation is extended to Beatrice Toth, Capt. USAF NC and Lorraine Robinson, Capt. USAF NC, without whose support this material could not have been collected. Acknowledgement is due to John E. Stauch, Major, USAF MSC, Fred Witzgall, 1/Lt. USAF MSC and Hugo Cuistas, M/Sgt. USAF, who spent many hours in the bacteriological laboratory interpreting these results.

New Adaptations of Brandt-Andrews Maneuver

Application to Inspection of Postpartum Cervix and Breech Delivery

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We Believe that Many Complications encountered during the fourth stage of labor — hemorrhage, shock, infection, and trauma — can be reduced materially by a modified application of the Brandt-Andrews maneuver, and that it might be adopted in all deliveries. In our experience its application to both visual inspection of the birth canal and breech delivery has contributed to a reduced morbidity and debility of both mother and infant.

Historical Background

Dickinson[1], in 1899, addressed the Brooklyn Gynecology Society on "Lifting and Manipulation of the Uterus through the Abdominal Wall to Control Postpartum Hemorrhage." In this address he stated that "To arrest bleeding after the delivery of the placenta, the flabby uterus is seized through the relaxed abdominal wall, and lifted, its body compressed against the lumbar spine, while the lower uterine segment and cervix are encircled firmly, with massage."

In 1933, Brandt[2], made a considerable contribution to obstetrics when he described a method of expression of the placenta by further adaptation of the Dickinson technique. This would seem to be the first new thinking regarding management of the third stage since Crede (1853) and occasioned much debate as to the relative merits of the two procedures.

Andrews[3], in 1940, reviewed and evaluated Brandt's method of expression of the placenta and thereby gave this maneuver wider acquaintance and greater acceptance.

From a talk delivered at the fifteenth annual meeting of the Illinois Obstetrical and Gynecological Society, Chicago. May 14, 1962.

The technique of the Brandt-Andrews maneuver for delivery of the placenta is as follows[4]:

"The physician waits a few minutes following delivery of the baby to permit spontaneous separation of the placenta. Then, with the left hand, the umbilical cord is grasped near the vulva and the right hand is placed on the abdomen so that the palmar surfaces of the fingers are over the anterior surface of the uterus, approximately at the junction of the corpus and the lower uterine segment. By gently pressing backward and slightly upward with the right hand, the corpus is pushed up into the abdomen. If the placenta has separated from the corpus, the cord in the left hand will not follow the upward movement of the uterus. To deliver the placenta and membranes, the upward pushing on the corpus with the right hand is stopped and pressure is exerted above the pubis and downward on the lower uterine segment toward the vulva. As this is being done, traction is made on the cord and it will bring forth the placenta and membranes.

"The placenta may also be delivered by continued gentle traction on the cord while the corpus is being pushed up and back. However, if the placenta is still attached to the corpus or is being held back by a constriction of the cervix, this is detected by an upward pull on the cord while the corpus is being pushed up and back. In such cases one must wait and repeat the maneuver a few minutes later, after the placenta has separated or the cervix has relaxed."

This manner of elevation of the uterus out of the pelvis and into the abdomen has been further adapted by us during the past three years (approximately 600 deliveries) in two situations, additional to the removal of the placenta: 1) postpartum visualization of the

birth canal, and 2) delivery of the after-coming head.

Visualization Of The Birth Canal

Its application in the "fourth stage," with vaginal outlet retractors, causes the vaginal walls to fall back to the pelvic wall and the cervix to hang limp in the pelvis at the level of the pelvic brim. Upon first employment of this maneuver one is unforgettably impressed with the ease with which one can visualize intimately the vaginal wall in its entirety and inspect the entire cervix without traumatic manipulation, by retraction of the vulva. One is thereby permitted visual inspection of the entire surface area of the vagina and the cervix without difficulty. Trendelenberg positioning of the patient, and a good light directed by the nurse — or a head light — are at times of some assistance but more often not necessary. It becomes unnecessary to further traumatize the cervix by "walking around it" with a pair of ring forceps at the vulva, as is the usual procedure for inspecting the cervix. Remnants of membranes and placental tissue are readily seen and easily removed. Cervical lacerations, erosions and polyps are promptly noted and evaluated and quite readily suture-ligated if actively bleeding. Lacerations of the vaginal wall and concealed submucosal hemorrhages, as in hematomas, are readily seen and evaluated and cared for while innocently small. Although we do not routinely explore the uterus for placental tissue and membranes, there is an additional feeling of security when this is done. We do, however, routinely sweep the fingers around the internal circumference of the cervix, to detect partial or total rupture in the lower uterine segment. Direct visualization of the birth canal and cervix and finding all is well or readily controlled has reduced anesthesia time and blood loss.

Application to Breech Delivery

Our second application of the Brandt-Andrews maneuver is during breech delivery, to assist in delivery of the after-coming head. After delivery of the fetal arms, the assistant, standing at the patient's left side, places his right hand[4] "on the abdomen so that the palmar surfaces of the fingers are over the anterior surface of the uterus, approximately at the junction of the corpus and the lower uterine segment. By gently pressing backward and slightly upward, with the right hand, the corpus is pushed up into the abdomen."

One finds that the presence of the placenta in the uterus makes for much easier elevation of the uterus in this situation. This manipulation serves to retract the lower uterine segment and cervix upward over the infant's head, *even as the prepuce is drawn back over the glans penis.* In this manner a considerable soft tissue mass, the cervix, *is subtracted from the total mass* previously occupying the midpelvis. The after-coming head, *now all alone in the midpelvis,* thereby becomes more maneuverable. Pressure on the after-coming head by the assistant is now applied in the area between the symphysis pubis and the elevated corpus and, combined with the operator's maneuvers, will more easily and quickly accomplish the delivery of the after-coming head. There is much less trauma to the fetal head and to the maternal soft parts than is the case when the entire uterus, with the placenta, is pressed into the pelvis to act as a piston to bring about the delivery of the after-coming head.

We believe that both mothers and breech infants have less morbidity and debility with this maneuver. Mothers have fewer pelvic complaints, due to less trauma and tension in the broad ligaments and the sacro-uterine ligaments. Time enough has not elapsed to state that there is less procidentia but this finding may reasonably be expected. The volume of lochia immediately postpartum seems less than usual, and involution seems more timely. This may be due to our practice of placing a dry "lap sponge" high in the vagina as the corpus is held high, and immediately before proceeding to the episiotomy repair. This holds the uterus high and permits the highly vascular pelvic tissues to become depleted in a more timely manner. The contact of the dry "lap sponge" with the cervix also stimulates a more efficient contraction of the fundus than is accomplished with oxytocics and/or massage of the fundus with its bruising effect. Fourth stage bleeding which would otherwise slow the repair by obscuring the operative field, is absorbed by the lap sponge.

Summary Evaluation

This maneuver, utilized as in the two instances related above, has given us a great sense of satisfaction and relief from "fifth stage" concern for our patient's welfare. With it we have accomplished visualization of the birth canal and ease of inspection and repair. There has been considerably *less anesthesia time* and there has been much *less blood loss* by the routine use of this maneuver. It has served to *subtract considerable trauma* from the process of childbirth. These three factors alone have contributed to a reduced morbidity and have speeded ultimate recovery. Our experience with this maneuver prompted us to recommend it as a cardinal procedure in routine management of the fourth stage of labor.

We also have experienced greater ease in the delivery of the breech-presenting infant by use of this maneuver, with less bruising of the uterus and broad ligaments and urinary bladder as well as less traction of the fetal neck and trauma to the fetal head.

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Discussion of Dr. Blair's Paper

Deane M. Farley, M.D., *Berwyn*

Inasmuch as Dr. Blair's description of two new applications of an old maneuver have not been published previously to my recollection, I believe that they may be original concepts.

When Dickinson originally described this maneuver for control of postpartum hemorrhage he favored it over downward "piston" pressure on the fundus, but he admitted that the "piston" pressure had an advantage in that it allowed for finding cervical lacerations. On the contrary, Dr. Blair gives the advantage to the opposite force, to the upward pressure of Dickinson's maneuver, as further developed by Brandt-Andrews for removal of the placenta, pointing out that it not only allows for easier visualization of the cervix, but of the entire vagina as well.

Let me say that the important thing is the cervical and genital tract inspection, by whatever maneuver it is accomplished. Some of us have difficulty visualizing the cervix or getting the light to shine in all corners of the vagina. This new application of an old maneuver may be helpful, and we should indeed be grateful for the information. I have been using it in all deliveries in the past two months. It is difficult to do without an assistant, especially in the obese. Perhaps we forget to use Trendelenberg position. Perhaps the abdominal hand, holding up the uterus, can manipulate the cervix and vault for better view, or perhaps a ring forcep can be used to expose lacerations that have fallen together. I wonder if Dr. Blair uses this maneuver without an assistant. When alone, I have found a three-bladed self-retaining retractor helpful during cervical repair.

In connection with this maneuver to assist delivery of the after-coming head in breech presentation, I believe it is accepted procedure to have an anesthestist initiate rapid induction of deep anesthesia when the breech has passed the vulva and the umbilicus appears. Is it possible that the uterus will be so relaxed that an assistant would find it difficult to identify the uterus separate from the fetal head so that he could elevate it? It is known that as the head enters the pelvis the cord is quite definitely compressed in a majority of cases, contributing to hypoxia. Although it would be desirable to have the cervix out of the pelvis to reduce factors causing this pressure on the cord, might manipulation of the uterus and its contained placenta cause detachment of that placenta, further contributing to hypoxia? The secret of success is not one or another method of delivery, but rather the skill, experience, and resourcefulness of the obstetrician. Every trick counts, and it behooves us to know about and have experience with every maneuver possible to help extricate us at this point of no return.

I must confess that I am not in a position to express a definite opinion on this maneuver because it is not backed up by my experience. However I believe we should all try it.

The authors statements about less morbidity, debility, pelvic complaints, etc., must be considered as opinions gathered from his experience rather than facts, for this has not been a controlled experiment.

The author wishes to thank Dr. Farley for his searching commentary. If, as he suggests, these new applications of an old maneuver represent an original concept, the author is especially gratified to have been able to describe them to this assembly.

In his discussion Dr. Farley states that he experiences some difficulty in utilizing this maneuver without an assistant. Actually, the only assistance needed can be provided by the anesthetist or circulating nurse, by their one-handed assistance under the drapes. The operator elevates the fundus and instructs the anesthetist or nurse to hold it there or manipulate it from side to side or to elevate it further, or to depress it into the pelvis as the operator may desire.

We find it rarely necessary, since using this maneuver, to assist in the delivery of the after coming head, to have the "anesthetist initiate rapid induction of deep anesthesia when the breech has passed the vulva and the umbilicus appears." The after coming head is not entirely in the fundus, but mainly in the lower uterine segment and effaced cervix when this maneuver is brought into play. The fundus, containing placenta, is readily identified and easily manipulated. We have at no time experienced a too early separation of the placenta prior to delivery of the after coming head attributable to this maneuver. We feel that this maneuver possibly reduces hypoxia in the passenger by reducing duration of pressure on the cord, length of time in transit and anesthesia depth and duration.

The Happy Mother Approach in OB

The goal of the obstetrician today is to deliver from the healthy mother a healthy child with as little trauma, physically and mentally, as is humanly possible. Childbearing should be an experience of satisfaction and joy, bringing to the mother a sensation of fulfillment and completeness, instead of dissatisfaction and horror. To accomplish an alleviation of pain and trauma, both mentally and physically, the physician utilizes many methods. He may use general anesthesia, local anesthesia, hypnosis or other methods. Regardless of which method is used, it is necessary to recognize the emotional status of the expectant mother and to adapt the mode of care and delivery to her individual constitutional capacity. This approach eliminates stereotyped management of delivery and antepartum care and necessitates individualized care, so that the mother may face the experience of labor with the greatest ease and as little anxiety as possible. This result can only be accomplished by the physician being constantly aware of the mother as an individual whose physical status is constantly being played upon by her psychologic and social status. It is necessary that the physician be aware of these factors in order to care for the expectant mother as a whole and not care for her just physically and expect to have a satisfied, happy, and emotionally sound mother following delivery of the child. *Frederick C. Andrews, M.D. Anxiety in Pregnancy. J. Florida M. A. January 1961.*

Clinical Significance of Raynaud's Phenomenon:

Part II—Associated Disorders

David I. Abramson, M.D., F.A.C.P., *Chicago*

Trauma

Pneumatic hammer disease: As mentioned before, trauma may be an etiologic factor in the production of Raynaud's phenomenon. For example, the use of a pneumatic hammer, which operates on a principle of percussion in rapid blows, over a long period of time may produce the color changes[9]. This phenomenon occurs only with the type of tool in which the blows are struck rapidly (usually more than 1,000 per minute). The disease therefore is found in stone cutters, riveters and shoe makers.

The rapid percussion of the pneumatic hammer is not responsible for the attack, but appears to sensitize the digital vessels to various vasoconstricting stimuli, such as exposure to cold. The color changes usually appear in the fingers of the hand which is nearest the end of the tool. Gradually, however, all the other fingers are involved except (in most instances) the thumbs and possibly the right index finger. The attacks usually begin within two months to a year after the worker has started to use the pneumatic tool, and they are typical of the ones already described. The course of the conditions is relatively benign, and trophic changes are rare. If the symptoms become intolerable, a change of occupation may be necessary.

A similar form of occupational Raynaud's phenomenon has been observed occasionally in pianists and typists. The vasospastic disturbance usually involves only one or two digits and is initiated only on exposure to cold. Apparently when long-continued trauma exists, even when the blows are not struck rapidly, Raynaud's phenomenon may result.

Post-traumatic vasomotor disorders: Raynaud's phenomenon may also be associated with post-traumatic vasomotor disorder (Sudeck's atrophy), a condition which follows varying degrees of trauma and in which signs of increased sympathetic tone are noted: persistent cyanosis, coldness, subjective sense of coldness, hyperhidrosis and edema. The precipitating agent in this disorder may be a gunshot wound, severe sprain, bruising injury near large blood vessels, minor infection or electric burn. In post-traumatic vasomotor disorders the color changes are localized to the digits in proximity to the injury, and it is probable that there is some underlying vascular injury resulting in narrowing or obstruction of the lumen of the digital vessels.

Ergot and Heavy Metals

Certain intoxications are responsible for Raynaud's phenomenon, among which is the ingestion of ergot, lead and arsenic. However, it must be pointed out that there is some question that intoxication by heavy metals has a direct etiologic significance in Raynaud's phenomenon.

Cold Injury

Prolonged exposure to cold, producing frostbite, immersion and trench foot, chilblains, cold agglutination of erythrocytes or cryoglobulinemia[10], may be responsible for Raynaud's phenomenon. This type of response may appear months and even years after the initial prolonged exposure to cold. Possibly it is due to some type of endarteritis of vessels that have

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Second of two parts, concluded in this issue.
Part one appeared in June issue.

been subjected to the severe or persistent cold. In a sense, then, exposure to cold can be considered to fall into the same category as other types of trauma.

Cold agglutination: Patients whose serum contains cold agglutinins in high titer are liable to attacks of cyanosis or Raynaud's phenomenon in the fingers, ears, nose or other exposed skin. Commonly the cold agglutinins are a complication of virus pneumonia and more rarely are present in association with hemolytic anemia, cirrhosis of the liver and at times even in otherwise normal individuals. As a result of exposure to cold from 0° to 10° C., or to a less extent from 10° to 20° C., agglutination of the red blood cells occurs in the cooled parts. On rewarming, this response disappears and the circulation returns to normal. If cold is sufficiently prolonged, thrombosis may occur; the condition then becomes irreversible and gangrene may result. Hemolysis, probably a purely local phenomenon, also occurs in the presence of cold.

When hemagglutination is present, arterial pulses are normally palpable at the wrist. There is stasis from obstruction of the capillaries by agglutination, recognized by the fact that local pressure on the cyanosed finger will not cause blanching as in Raynaud's phenomenon from other causes. Furthermore, the whole hand may be affected rather than only the digits, casting some doubt on the inclusion of this entity in the category of Raynaud's phenomenon.

Shoulder Girdle Compression Syndromes

The shoulder girdle compression syndromes, which produce mechanical interference with blood flow through main arteries and compression of the brachial plexus as a result of external pressure, may likewise produce periods of digital pallor. This type of response may be noted in cervical rib, the scalenus anticus syndrome, the hyperabduction syndrome[11], the costoclavicular syndrome, instances in which pressure is exerted in the axilla through the incorrect use of a crutch, and in the presence of compression of the brachial plexus and subclavian vessels by tumors.

Diseases of the Nervous System

Certain diseases of the nervous system may be associated with Raynaud's phenomenon, among which are protruded intervertebral disks, chronic anterior poliomyelitis, peripheral neuritis, syringomyelia, causalgia and even hemiplegia.

Occlusive Arterial Vascular Disorders

Occlusive vascular disorders most frequently associated with Raynaud's phenomenon are thromboangiitis obliterans and arteriosclerosis obliterans. Less frequently it is observed following arterial embolism or obstruction of a major arterial channel due to some other cause. Raynaud's phenomenon is present in about 10 per cent of cases of arteriosclerosis obliterans[12] and in about 12 per cent of cases of thromboangiitis obliterans[13]. The hands are more commonly affected than the feet. In arteriosclerosis obliterans, Raynaud's phenomenon rarely occurs in its typical form, usually only one or two digits being involved in one limb, and pallor being an outstanding feature. Cyanosis is minimal or absent. In both arteriosclerosis obliterans and thromboangiitis obliterans the precipitating stimulus producing the color changes in the digits is cold and rarely emotion, in contrast with Raynaud's disease.

Obstruction of a major vessel at the root of the limb may give rise to Raynaud's phenomenon in the digits. In such cases the greatly diminished flow in the digital arteries can be completely arrested by the normal reactions of the body and the part to cold.

"Collagen" Disorders

The various "collagen" diseases with which Raynaud's phenomenon may be associated are scleroderma, systemic lupus erythematosus, dermatomyositis, polyarteritis nodosa and rheumatoid arthritis and rheumatic fever.

Progressive systemic sclerosis (generalized scleroderma): The skin changes may be limited to the hands, in half of which instances there is an associated Raynaud's phenomenon. This response tends to become more severe as the vascular changes advance. Later, trophic changes in the digits are common. It is of interest that the vascular abnormalities may be present up to five years before sclerosis of the skin of the fingers becomes evident, although



FIGURE 2. Loss of substance of fingertips and absorption of bone of terminal phalanx in patient with long-standing progressive systemic sclerosis.



FIGURE 3. Gangrene of fingers in young female patient with systemic lupus erythematosus (reproduced from D. I. Abramson, "Diagnosis and Treatment of Peripheral Vascular Disorders," Paul B. Hoeber, New York, 1956).

under such circumstances there is usually stiffness of the fingers with limitation of flexion between attacks of the vascular spasm. Calcinosis or deposits of calcium phosphate in the subcutaneous tissue of the digits and in the periarticular tissues is sometimes seen, and there may be absorption of bone of the terminal phalanges (Fig. 2). Tests of circulation in the digits with scleroderma subject to Raynaud's phenomenon show evidence of impairment of digital blood flow. Arteriograms of digital arteries reveal segments of complete vascular obliteration very similar to the changes observed in distal thromboangiitis obliterans. Thus occurrence of Raynaud's phenomenon in scleroderma is a result of a normal physiologic reaction to cold in arteries already narrowed or obstructed.

Systemic lupus erythematosus: There is involvement of the digital arteries, resulting in narrowing and obstruction of their lumen, at times to the point of producing gangrene of tissues (Fig. 3). Because of the color changes, this disorder not frequently is misdiagnosed as Raynaud's disease, especially in the early stages of the condition. Original diagnosis may first be rheumatoid arthritis, then Raynaud's disease, and finally, only when various organs begin to show involvement clinically, is the diagnosis of systemic lupus erythematosus considered.

Dermatomyositis and polyarteritis nodosa: In dermatomyositis, a disease affecting the muscles and skin and giving rise to marked tenderness and a profound weakness, Raynaud's phenomenon may occur in the fingers. Similarly in polyarteritis nodosa, in which there may be organic involvement of the digital arteries, color changes may also be observed in these sites.

Rheumatic fever and rheumatoid arthritis: Raynaud's phenomenon is not uncommon in association with rheumatic affections and occurs usually in the early stage of the disorder. The changes occur in the fingers and toes and may be related to local swelling of the vessels or occasionally to the presence of Aschoff bodies actually within the walls of the arteries. Tests of circulatory efficiency show organic occlusion of the small peripheral vessels.

Miscellaneous Disorders Associated with Raynaud's Phenomenon

Among these are advanced pulmonary tuberculosis, congenital syphilis associated with hemoglobinuria, leukemia, paroxysmal hemoglobinuria, malaria, and polycythemia vera. Since Raynaud's phenomenon occurs only in a small percentage of such cases, it is probable that some underlying inherent vasomotor disturbance is present, which is brought out by the disease process. It may be also that in some instances, Raynaud's phenomenon is merely coincidental and not related in any etiologic way to the primary disease. These cases should be placed in the category of primary Raynaud's disease.

Differentiation from Other Vasospastic States

Both primary Raynaud's disease and Raynaud's phenomenon must be differentiated from vasospastic disorders which resemble them in

the sense that skin color changes are also present. Among these are acrocyanosis, livedo reticularis, erythrocyanosis, and persistent vasospasm associated with a number of unrelated disorders, such as frostbite, trench foot, and immersion foot, post-traumatic vasomotor disorders, causalgia and causalgic states, and vasospasm due to disuse. In contrast with Raynaud's disease or Raynaud's phenomenon, in which the color changes are episodic and precipitated by exposure to cold and emotional excitation, the color alterations are persistent, being merely exaggerated by exposure to cold. They are not limited to the digits, but involve a good portion of the extremity. Finally, the conspicuous change is generally cyanosis, while blanching is never observed. However, a number of these vasospastic disorders may also manifest episodic color changes of Raynaud's phenomenon.

The differential diagnosis between Raynaud's phenomenon and Raynaud's disease depends primarily upon the two factors already stressed. In Raynaud's phenomenon there is an underlying difficulty which frequently is readily apparent through history and/or physical findings, while in Raynaud's disease no etiology can be elicited, and between attacks of color change all tests of circulatory efficiency are normal. Signs of vasospasm may be present, but these can all be eliminated by removal of vasomotor tonus, using reflex vasodilatation, paravertebral sympathetic blocks, sacral and spinal blocks, peripheral nerve block or sympathetic blocking agents.

Summary

It is necessary to point out that since the prognosis of Raynaud's phenomenon is entirely different from that of Raynaud's disease, it is essential to make a careful differential diagnosis between the two, utilizing all available clinical tests for the study of the arterial circulation in the limbs.

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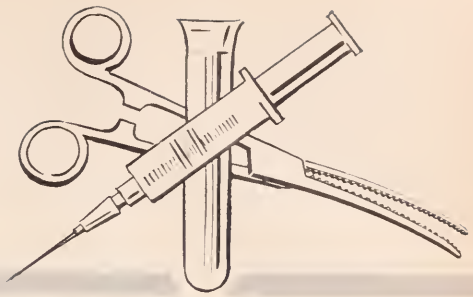
The Force We Face

"We generate the steam among the constituents, and the White House calls the shots." This is how Dr. Blue Cartenson, executive head of the National Council of Senior Citizens Health Through Social Security, describes the council's main function — working at the grass-roots level.

The "steam" is generated by council workers at panels, workshops, marches and rallies across the country. The most important part of the council program are the seminars and workshops it conducts to tell local senior citizen leaders how to pressure Congress for Medicare. The council's principle pressure tactic, according to Dr. Cartenson, is to blast it out of Ways and Means Committee. "Have mass meetings," he advised. "Get the top citizens in your community to sponsor them and have the committee headed by a doctor if you can find one.

"When you get a petition," he continued, "see that it is delivered to the congressman personally. A letter-writing campaign is better than a mailed petition, and one hand-written letter is worth 50 form letters."

Currently the council, with headquarters in Washington, has 700 branches throughout the United States, representing 600,000 senior citizens. *Newsweek, April 2, 1962.*



Clinical Surgical Conferences

COOK COUNTY HOSPITAL

Massive Upper Gastrointestinal Bleeding

MODERATOR: ROBERT J. BAKER, M.D.
Associate Director, Department of Surgical Education
DISCUSSANTS: JOHN T. REYNOLDS, M.D.
Clinical Professor of Surgery, University of Illinois College of Medicine; Attending Surgeon, Presbyterian-St. Luke's Hospital
PETER A. ROSI, M.D.
Associate Professor of Surgery, Northwestern University Medical School; Attending Surgeon, Cook County, Wesley Memorial and Columbus Hospitals

DR. ROBERT J. BAKER: If an attempt were made deliberately to find the most difficult diagnostic and therapeutic problem in the realm of gastroenterology, it would undoubtedly be massive upper gastrointestinal bleeding. These patients are admitted with a phenomenon that is alarming both to them and to their physicians — massive hematemesis. This emergency always poses a serious risk to the patient's life. The problem of making a diagnosis and treating the patient is rarely simple. He frequently has coexistent disease which confuses the picture, and he may have been treated in the past for a condition which may or may not have been correctly diagnosed and treated.

To discuss this problem with us is Dr. John Reynolds, clinical professor of surgery at the University of Illinois College of Medicine and attending surgeon at Presbyterian-St. Luke's Hospital. Dr. Reynolds long has been a pioneer in the field of gastrointestinal hemorrhage and has extensive experience in diagnosis and management of these problems.

Dr. Peter Rosi, our other discussant, is attending surgeon at this hospital, and also at Wesley Memorial and Columbus Hospitals. He is exceedingly well-known for his interest in gastric surgery. We are equally honored to have him with us.

Case 1

A 28-year-old Negro male was admitted to the surgical service of the Cook County Hospital with a history of nausea, followed by vomiting of blood clots and brown liquid material of some two days' duration. The patient had been on an alcoholic binge, and after four days commenced to have epigastric distress, nausea, and vomiting. Continued ethanol intake did not relieve the discomfort and emesis became bloody, followed by vomiting of grossly clotted material.

History did not reveal significant findings other than occasional "heartburn," relieved by antacids. Patient had lost no weight, but had one older brother who had had a surgical procedure for a "ruptured stomach."

Physical examination disclosed BP 100/60, pulse 120, regular. The skin was warm but clammy, and mucous membranes were pallid. Examination of chest and abdomen was totally unremarkable, but rectal examination yielded tarry, foul-smelling material, followed by a copious, tarry stool.

Hematocrit was 28%, urinalysis showed 1 plus albuminuria only. Admission blood volume revealed a RBC mass deficit of 560 cc., a plasma deficit of 412 cc., or total deficit of 972 cc. Blood transfusions were started, and the introduction of a Levine tube was accompanied by the emesis of 400 cc. of clotted blood and reddish-brown fluid. Urine output was scanty, so more vigorous transfusion was undertaken, with 2 units running simultaneously. After 9 transfusions in 7½ hours, pulse was 128, BP 90/60, and urine output continued at 20 cc. per hour.

Dr. Peter A. Rosi: This particular patient had a history of alcoholism, which may have aggravated a previously existing pathologic process, possibly an old ulcer, or the alcoholism could irritate the gastric mucosa and produce a new ulcer. Another problem is that initial vomitus was clear, then it became bloody; hence the vomiting might have contributed to his bleeding. It is possible that he may have torn the lower esophagus or cardia; this would not produce an excessive amount of bleeding, but if the tear extended down to the cardia and fundus of the stomach it could involve one of the large vessels to give massive bleeding. This man's brother had had a ruptured ulcer, but supposition of a familial relationship should not be hasty.

In all upper gastrointestinal bleeding, x-ray study is of tremendous value, if done cautiously. In most of our patients who are in reasonably good condition, thick barium is given cautiously to decide whether they have a duodenal deformity or a penetrating duodenal ulcer or a gastric ulcer.

The next problem is to determine whether the patient will stop bleeding under conservative management or will have to have immediate surgery. These patients are usually in "mild" shock, or preshock, when they are admitted. This patient's pulse was rapid, so he probably had lost a good deal of blood. His hematocrit was 28 per cent, which means he has lost blood, but it is not known how much. For many years it was thought that if blood volume could be restored to normal, these patients could be treated conservatively. In the past, however, the methods of doing blood volume determinations were cumbersome and could only be used once or twice. Now with the use of isotopes and counters capable of measuring the amount of isotope that remains in the syringe, accurate blood volume determinations are routine. This is one of the most important methods available for determining exact status of the patient with GI bleeding. Although it is reportedly of no value when the patient is in shock, most of the patients are not in profound shock. I am sure this patient has a reasonably good circulating blood volume, so results would be accurate.

Blood (2 units) should be administered as fast as possible. At one time it was thought that blood given rapidly would induce more transfusion reactions, but this has not been borne out. A very interesting review of our cases of upper gastrointestinal bleeding for the past seven or eight years has shown that in the pre-blood volume era there were 300 cases with transfusions, and reactions of one type or another occurred in about 35 per cent with fever, tachycardia, dyspnea and evidence of pulmonary edema. After blood volume determination was instituted, blood transfusion reaction averaged about 3 per cent, so it was decided that the reactions were due to the massive amounts of blood we gave prior to blood volume studies. Use of blood volume studies will prevent over-transfusion, one of the greatest dangers. If you try to raise the hematocrit to normal, hypervolemia and blood transfusion reaction of the circulatory overload type will result.

However, one blood volume does not help a great deal, and does not indicate whether the patient is actively bleeding. The only way to manage such a patient is to do serial blood volumes. We have done them every two or three hours and can titer the amount of blood the patient is getting against the amount lost. This can be done with 5 millicuries of I^{131}. You can do about 20 blood volume determinations with the same amount of radioactivity required for thyroid uptake, and can frequently predict whether these patients should be treated conservatively or operated upon. In this patient, after giving 2 pints of blood, I suggest doing another blood volume ascertaining whether the blood has left the vascular compartment; although his general condition is good, he may still be actively bleeding. If desired, he can be given another 2 pints of blood and in two hours

do another blood volume determination. The patient should be operated on immediately if he is still bleeding. If, after these 2 pints of blood, the patient shows a stabilizing of blood volume, continue conservative treatment. However, if he continues to lose blood, he should be operated on as soon as possible; the greater the delay the higher the mortality.

We use blood volume as a criterion for emergency surgery in treating these patients, dividing them into four categories: 1) The patient who is admitted in shock, is given 1 or 2 pints of blood, then stops bleeding, but needs more blood; 2) the patient who is given blood and retains most of it; blood volume determination indicates that the total loss is reasonably small, he stops bleeding and gets well; 3) the patient who bleeds, is given blood and who loses 75 per cent of the transfused volume. That patient continues to lose blood and should be operated on; and 4) the patient who has massive bleeding, and is given blood which is promptly lost. Even if he gets blood by two veins you cannot maintain blood pressure. That patient should be operated on immediately. If you follow these criteria you will operate on patients earlier and get better results.

Dr. Baker: Do I assume correctly, Dr. Rosi, that you x-ray every patient with massive gastrointestinal bleeding?

Dr. Rosi: No. If we are uncertain as to the diagnosis, we wait until they come out of shock, and then x-ray them.

Dr. Baker: Do you give instructions to the radiologist about manipulating the abdomen?

Dr. Rosi: We send the resident or intern down with the patient, tell the radiologist the patient is not to stand but is to be x-rayed on his back and that he is not to manipulate the stomach at all, but may rotate the patient.

Dr. Baker: What about the quality of the films?

Dr. Rosi: They are not too diagnostic but every patient in whom you do find a definite gastric ulcer should be operated on immediately.

Dr. Baker: Dr. Reynolds, we would like you to outline what you feel is the optimum amount of diagnostic manipulation such a bleeding patient can tolerate and how much you transfuse.

Dr. John T. Reynolds: Emergency care in these patients is the most important part of the immediate treatment. One must recognize the fact that bleeding may be excessive and during the interval between the administration of emergency care and the actual operation, blood should be replaced on a volume-for-volume basis. When blood volume determinations are available, these will help, but when they are not available, accurate blood replacement often can be accomplished by observation of the old standbys, namely, blood pressure, pulse and respiratory rate. In planning the care of these patients it is very essential to decide where one is going to operate and to know the source of the bleeding. In order to do this, it is essential that the source be determined, and this is not always a simple matter.

X-rays, while extremely helpful if diagnostic, cannot always be depended upon; there is often an error, not only in radiologic techniques but in the case of loss of blood from the portal system. Therefore, x-ray is desirable except that its deficiencies should be recognized. The absence of positive x-ray findings does not mean that there is no bleeding from an ulcer or varix.

Meanwhile, it is necessary that the blood be emptied from the stomach. In order to do this a tube must be placed in the stomach in spite of one's natural reluctance to pass a tube over veins which are likely to bleed. To avoid trouble, recognize the fact that the stomach cannot be emptied well with anything less than a very large Ewald type tube, or a Sengstaken tube; such a tube should be passed at once in patients in whom blood is welling up out of the mouth. Although this seems traumatic, it will in the long run be more satisfactory. The tube should be passed and the stomach aspirated of the blood it contains. This will be very difficult to do on occasion. It must be done vigorously with large volumes of saline solution which can be washed back and forth into and out of the stomach in such a way as to evacuate the clots. This may take as much as 6 to 10 gallons of saline solution. At the same time, however, by utilizing ice-cold saline solution, one can utilize the principle of refrigeration of the stomach — a point emphasized as being extremely important by Dr. Wangensteen.

There are many unexpected advantages from emptying the stomach. Not only is the patient thereby protected against the urge to vomit, but by emptying the stomach the stimulus to

the gastric mucosa to continue to secrete acid juices is diminished. With this approach and the drop in acid secondary to lack of stimulus, much benefit may accrue in patients who do not have esophageal varices but who actually are bleeding from the duodenum.

At the same time that one is thinking of emptying the stomach, it is necessary to realize that if the tube passed can by choice be a Sengstaken type in which tamponade of the lower esophagus can be added to the effective irrigation and decompression, a maximum therapeutic effort can result at the same time. Therefore, we have adopted two policies: first, the patient is typed and cross matched and blood is administered at once. When the cross matching is done, determination of hepatic function is also made in order to establish the condition of the hepatic function and at the same time all clotting mechanisms are established to be acceptable. Second, the stomach is emptied with the passing of a Sengstaken-type tube, permitting tamponade and allowing adequate washing. With this regime the use of iced saline is desirable. Using this approach, the patient soon should be stabilized and one can decide whether or not the bleeding has stopped; or, the patient can be prepared for surgery.

The decision to operate is an individual one and there are many factors which influence this, none of which are absolutely inviolate at this time. As a general rule, patients whose bleeding can be stopped are best operated upon some two weeks after the original episode; those with liver damage are at their worst in the immediate post-bleeding period and will have recovered fairly satisfactorily by the beginning of the third week. In the event that a patient does not stop bleeding, surgery becomes necessary.

At this time the surgeon must know where he is going to operate and we do not like to make any concessions to this problem. Therefore we are certain to have an endoscopist at hand at the time of anesthesia who, once the patient is anesthetized, passes an esophagoscope and can tell us whether or not esophageal varices are bleeding. In the event that none are seen, the incision can obviously be abdominal since all the bleeding will come from below the diaphragm. If there is bleeding, the approach must be through the chest. At the present time, what should be done once surgery is begun for these esophageal varices is also a matter of indecision. One group recently, in the last 30 to 40 cases, has chosen to operate within 8 hours upon all patients, expose the esophagus, open it, occlude the cardiac end, cut down the transmission of pressure from the intra-abdominal cavity, and oversew the varicosities in the open esophagus. In their series, they have had no mortality. Whether this will continue to be an accepted approach is difficult to say.

Dr. Baker: Dr. Rosi, this man was a heavy drinker but he did not have any of the usual stigmata of cirrhosis. Do you believe there is any single sign which would lead you to suspect esophageal varices? Some authors feel that every esophageal bleeder should show telangiectasia.

Dr. Rosi: This man is young, and he would have had to drink a lot of alcohol to get cirrhosis at his age. It is true that the absence of hair and other stigmata of cirrhosis are of value, but x-rays are of almost no value. Occasionally you see varices on x-ray, but not often. There are secondary findings that unfortunately other diseases may produce. I think at the time of surgery the best thing to do is to look at the esophagus. Unfortunately, when you are operating for bleeding you like to be reasonably certain where the bleeding is coming from. If it is in the abdomen you have a chance, but if you are in the abdomen and you have to go up into the chest, you are in trouble. I think direct esophagoscopy is preferred.

Dr. Baker: Dr. Reynolds indicated that some work has been done on the approach to acutely bleeding varices of the esophagus. What is your opinion?

Dr. Rosi: If they are actively bleeding, there is no doubt that ligating the varices is to be preferred over the more radical operations. We have done that in this hospital but the patient bled later, although he did get over the acute episode. It is a transthoracic procedure because you need to reach the upper extent of the varices.

Dr. Reynolds: I agree that it is not as simple as it sounds. The point has been made that the flow of blood up from the abdomen may be lessened in the esophageal vessels by occluding them at their gastric end. By occluding this area one can prevent blood from flowing up from the abdominal cavity into the thorax. Dr. William

Dye has had difficulties when he occluded the abdominal source of the blood flow. Since the flow is all up from the abdomen, clamping will keep the vessels empty until clotting can occur. I think this is an interesting and important point.

It may be necessary to do a portal decompression operation on the patient at a second operation during the same hospital stay. Following the teaching of Dr. Richard Capps we wait 14 days after a hemorrhage before doing a shunt procedure.

Dr. Baker: This is a very common problem here at County. Is there any place for Sangstaken tamponade alone?

Dr. Reynolds: Yes, temporarily.

Dr. Baker: How long would you use it?

Dr. Reynolds: I would not know how to answer that. Tubes have been left in for days without causing trouble, but tubes left in for shorter times have given serious trouble, so every case is individual. I would like to emphasize that the clotting mechanism should be checked very carefully.

Dr. Baker: Do you think these patients can tolerate transthoracic ligation, which necessitates thoractomy.

Dr. Reynolds: Yes, very well.

Dr. Baker: Do you agree, Dr. Rosi?

Dr. Rosi: Yes. It should be given a chance if there is massive bleeding and if the patient is a good risk.

Dr. Reynolds: Some authors have made a strong point of making a decision for early operation. They feel that not only is the bleeding controlled at once, but that by so doing they avoid all the respiratory complications which are likely to be associated with an indwelling nasal tube kept in place for many days.

Dr. Baker: Dr. Wangensteen has written about gastric hypothermia in upper G. I. bleeders. Dr. Reynolds, have you employed his device?

Dr. Reynolds: Our house staff has recently used this on one patient who did not subsequently require an operation. They emptied the stomach with a large Ewald tube and then put in a Levine tube and used iced saline. It was very effective.

Dr. Rosi: Wangensteen had brilliant results in his patients, but I am sure that does not occur at County. Many times when I have listened to him I have thought I would have to try it because now they have these machines that will keep the temperature almost at any level. I think it should be given a fair trial, however, because Wangensteen had excellent results. Many of the ulcers that bleed are just acute ulcers with multiple acute erosions and if one happens to be over a large vein it will continue to ooze. Many times they will have stopped bleeding by the time you operate. If you could have some means of stopping the hemorrhage, letting the patient get well, he may be spared surgery. This should be given much thought and trial.

Dr. Reynolds: Dr. Ralph Brown, at Presbyterian, used to put an Ewald tube down and irrigate the stomach with iced water in which he put 1 oz. of epinephrine. It is said that very few of these patients had to be operated upon. He was ahead of his time. He had the reputation of being a stickler for details, and one of the things he insisted upon was that the stomach be empty and the water had to be ice cold and voluminous. He would go over to the hospital in the middle of the night and do this himself.

Dr. Baker: We have had some experience with this technique. We had a medical student doing a research project with a gastric cooling device, and he inserted the tube in the stomach of a bleeding patient and the bleeding stopped; however, at 5 o'clock he decided to go home and took his machine with him; the patient was operated on at 11 p.m. This one experience convinced me that the method has great virtue.

Question: How effective is the Sangstaken tube for diagnosis?

Dr. Reynolds: You can eliminate the presence of continued bleeding from varices.

Dr. Rosi: I think you can eliminate the possibility of varices if they continue to bleed.

Dr. Baker: Dr. Reynolds, this patient was operated on because it was obvious that we were losing ground rapidly. He was anesthetized, and the abdomen was opened. The surgeon had expected to find a bleeding ulcer, but didn't. The stomach was tremendously distended with clots. What would you do? There was nothing palpable from the outside of the stomach.

Dr. Reynolds: Good anesthesia is essential because these patients are so critically ill. One

mistake and you lose them. The pharynx should be sprayed with a topical anesthetic, an intratracheal tube inserted, and the balloon inflated before the patient is given the anesthetic. If he vomited and aspirated, he would not survive; inserting the tube first prevents this. While these patients do not stand any complications, they will stand surgery if the surgeon is very careful. When the abdomen is opened, the stomach must be inspected as well as the duodenum. In the last patient I had we could not tell much. We did have a duodenal scar, so we opened the duodenum. He had a scar, but no bleeding and no acute ulcer. The patient was a big man so we made an incision into the stomach and took out all the clots. Then each inch of the stomach had to be inspected with great care. It is important to feel the gastric mucosa and we had to be very careful to check it throughout, since by the time the abdomen is opened, the bleeding may have stopped. In such a case, no spurter will be found. There is no excuse for a blind gastric resection. You have to put a gloved hand inside the stomach and palpate it. It takes wide exposure in all cases. In our case, a small irregularity was proven to be an open end artery with a clot in the end. It was oversewn and the ulcer not removed.

Dr. Baker: Let us assume that you find this bleeder and you oversew it and it stops bleeding. What then?

Dr. Reynolds: I would not do anything more. However, when the ulcer is duodenal, a recurrence must be prevented by doing a vagotomy, and drainage procedure. In the patient I mentioned, after oversewing the gastric bleeder, I did a vagotomy and gastro-jejunostomy because of the old scar. I am strongly influenced by Dr. Dragstedt, so in the presence of ulcer I do not see how one can fail to do a vagotomy. I would do a vagotomy and a drainage procedure in chronic duodenal ulcer.

Dr. Baker: If this were a duodenal ulcer would pyloroplasty be the thing to do?

Dr. Reynolds: Yes. That is what I would have done.

Dr. Baker: Dr. Rosi, how would you approach this stomach with no external sign of a lesion.

Dr. Rosi: I agree that the first thing to do is to determine the site of bleeding. If the stomach seems to be empty and you have a Levine tube in place, you can make a small incision and with the proctoscope visualize the lower esophagus and cardia, and many times you can see ulceration. Then, of course, the only thing to do is to open up the area widely. You might be able to find these small, multiple, punctate ulcers, but those lesions will usually not be bleeding actively at the time of surgery. Many times you just feel them. We had a patient recently with multiple erosions, but only one high up on the lessor curvature had a clot in it and we transfixed it. The sense of touch is very important. Then we proceed down towards the duodenum. If there is an ulcer the only thing to do is transfix it, unless there is a big crater and we still resect some of those. Some years ago we used to transfix without vagotomy, but the patients bled again. So if there is a definite, large, hard ulcer, it is probably best to transfix it and do more than just a drainage procedure, perhaps a subtotal resection and vagotomy because those patients are quite prone to bleed again.

As for blind gastric resection, there is very little place for that. The patient may have an undiagnosed blood dyscrasia, or bleeding in the gastrointestinal tract that regurgitates up into the stomach and a blind gastric resection would not help. Rather than do that, I would look downward for other sources of bleeding. If you do not find the bleeding point, I would not do a resection. Most of those patients do well because in the interim you treat them more vigorously. Conservatism should be the essence in their treatment, and I do not try to do more than is absolutely necessary. If a patient has multiple acute ulcers, certainly acid may be a factor, and in those instances vagotomy and pyloroplasty is the operation that will not do any harm. I think in most cases of acute ulcers we have done vagotomy and pyloroplasty at the time of exploration.

Dr. Baker: When you made this gastroduodenostomy, did you close it as a pyloroplasty?

Dr. Reynolds: Yes.

Dr. Baker: Have you ever had to extend this incision up higher on the stomach?

Dr. Reynolds: This is the only time I have ever used it. I did the gastrojejunostomy through a separate incision.

Question: What about acute alcoholic gastritis and the type of bleeding you encounter with that rather than due to varices?

Dr. Baker: Or, how do you recognize gastritis?

Dr. Reynolds: I wanted to ask Dr. Rosi that. I have never operated upon one.

Dr. Rosi: I have operated upon acute gastritis with mucosal oozing. Usually, it is associated with alcoholism. I assume that it probably would stop bleeding.

Dr. Reynolds: Does anybody ever die from bleeding in acute alcoholic gastritis?

Dr. Robert J. Freeark: Yes, they do die.

Dr. Baker: I would agree that they may die, but I think the vast majority of gastrides will stop with conservative management.

Dr. Donald Kozoll: Some series report 5 per cent of deaths from massive gastrointestinal bleeding from that source.

Dr. Baker: What do you do when you see many bleeding points in the stomach?

Dr. Rosi: We have done everything with them. I think most recently we have resected a large part of the stomach. If the patient has repeated parenchymatous bleeding, not of the acute type but the type of gastritis that you can demonstrate by gastroscopy, and if there are repeated hemorrhages every six to eight months, that patient has diffuse disease of the stomach and probably should have total gastrectomy. If you do anything less than that, then the residual gastric pouch will bleed postoperatively; you will have the same problem again and intermittent bleeding will occur necessitating reoperation. The second operation is much more difficult than the first. I think those patients have serious disease and should have the stomach removed. In the acute ones, I would be tempted to do vagotomy. That, of course, is not specific.

Dr. Baker: Do you think parenchymatous hemorrhage occurs with gastritis and with stress or use of steroids? Do you think the therapy is the same for both?

Dr. Rosi: Yes.

Dr. Baker: Dr. Reynolds mentioned such a patient who bled a few days following operation.

Dr. Reynolds: We had a patient with recurrent carcinoma of the rectum and two isolated metastases to the liver. We removed this, and he did extremely well for ten days and then had a tremendous gastric hemorrhage, and would not stop bleeding. I hated to have to operate, but we thought that only in this way could we accomplish anything.

In this patient, there were many ulcers and we did a total gastrectomy. He was very well for several days and then developed overwhelming peritonitis, and died. His response to gastrectomy was good but he died of a complication of the contamination which occurred at the operation. I feel sure that the cause of death in this man, his peritonitis, became a clinical problem because of poor nutrition. In order to have a patient able to tolerate such a procedure, his nutrition should be optimal. One of my colleagues recently did a total gastrectomy under somewhat similar circumstances and the patient survived.

Dr. Baker: We have had a number of cases in which the patient presented with massive upper gastrointestinal hemorrhage, were operated on, no lesion was found or seen outside the stomach so the stomach was opened and there, in normal mucosa, is a spurting vessel. What type of lesion is this?

Dr. Reynolds: Why not take a piece of stomach out very carefully and send it to pathology? I think this is erosion of a vessel.

Dr. Baker: You do not think it is a function of stress?

Dr. Reynolds: I don't know.

Dr. Rosi: In the late 1880's, an anatomist did a careful study of the stomach and showed that arteriosclerosis that occurs is more advanced and progressive in the stomach than anywhere else in the body. These people have small aneurysms, and these have been demonstrated to bleed in resected specimens.

Dr. Baker: The cases I have seen have been in young people, and so these may be early arteriosclerotic or congenital lesions, similar to intracranial aneurysm.

Question: What do you do with this patient after he is over the initial stress period and you have oversewn the area?

Dr. Rosi: I would just leave him alone.

Dr. Baker: At surgery, this patient had two longitudinal tears in the upper end of the stomach at the cardia and there was a spurter in the base of one of the ulcers. These were oversewn with continuous catgut, and the patient

made an uneventful recovery; he has not rebled.

Conclusions

1. One of the most alarming catastrophes that can befall a patient is the occurrence of an episode of massive hematemesis or melena, especially the former. The significance to the layman of blood as the "fluid of life" makes such an occurrence an ominous and obviously life-endangering one.

2. The definition of massive hemorrhage has been a subject of controversy, but has generally been felt to represent a minimum of 1000 cc (approximately 15-20% of the normal circulating blood volume) in an 8-12 hour period.

3. Hemorrhage may be arterial, venous, or "capillary ooze." Statistics demonstrating the etiology of upper gastrointestinal hemorrhage vary as follows in several large series of cases:

Duodenal ulcer	25-60%
Esophageal varices	15-40%
Gastric ulcer	10-25%
Hemorrhagic gastritis	15-31%
Peptic esophagitis	7-12%
Assorted rare lesions	4-10%
(Leiomyoma, Leiomyosarcoma)	
(Mallory-Weiss, Osler-Weber-Rendu)	
Undetermined site	8-19%

4. Of prime importance in management of these seriously ill patients is a rapid, effective method of localizing the site of the hemorrhage. This has led some clinicians to the Vigorous Diagnostic Approach (V.D.A.), which means immediate contrast roentgenologic and esophagoscopic examination. The rationale for this approach postulates that it is worse to hesitate in a dangerous situation when the indications for surgery are clear than it is to proceed with workup and therapy, though the workup admittedly poses a small risk.

5. An alternate approach holds that upper gastrointestinal hemorrhage falls into two major groups: bleeding above the cardia, and bleeding below. This distinction can frequently be made with the Sangstaken esophageal tamponade balloon or a modification thereof.

6. Conservative management of upper G.I. bleeding embraces the following essential steps:

a. Adequate blood volume replenishment
b. Sedation
c. Levine suction (or periodic feeding of alkali)
d. Anticholinergic drugs (atropine, Banthine)
e. Ice water lavage or, preferably, gastric cooling.
f. Constant observation.

7. Failure of resuscitative and supportive measures to stabilize the patient, or recurrence of bleeding when it has ceased, have long been recognized as prime indications for aggressive attack on the bleeding lesion.

Study of Whipple's Disease

The cooperation of physicians is requested in a comprehensive study of Whipple's Disease conducted by the National Institute of Arthritis and Metabolic Diseases to investigate therapeutic measures capable of producing remissions and, possibly, to gain insight into the underlying mechanisms responsible.

Patients are needed who have either sufficient circumstantial evidence or definitive proof of the presence of the disease. Those patients who are admitted to the study will undergo an initial clinical evaluation to confirm the diagnosis and will then be placed on regimens designed to produce remissions. The duration of a patient's stay will be determined primarily by how he responds to such treatment.

Upon completion of the studies patients will be returned to the care of their referring physicians, and complete summaries of the Clinical Center's evaluations will be sent to the latter. It is sometimes desirable to arrange for occasional follow-up visits by the patients. These, however, supplement rather than substitute for visits to the patients' personal physicians.

Physicians interested in the possibility of referring individual patients should write or telephone Dr. Leonard Laster, senior investigator, Gastroenterology Unit, National Institute of Arthritis and Metabolic Diseases, Bethesda 14, Md.

The View Box

FRANZ GAMPL, M.D., *Chicago*

This 44-year-old female had noticed swelling of her right arm as long as she could remember. There were multiple soft and painless nodules on the right hand, the forearm, and the distal third of the upper arm. These varied in diameter from one to five centimeters. Some of the nodules were compressible. There were no pulsations or bruits. The arterial pulses were equal bilaterally. Both upper extremities were of the same length, but the circumference of the right forearm was two inches more than the left.

The patient was referred for radiographic examination of the right upper extremity.



FIGURE 1. Anterior-posterior view of the hand.

What is your diagnosis?

1) Lipomatosis
2) Cavernous hemangioma
3) Neurofibromatosis
4) Trichinosis

(continued on next page)



FIGURE 2. Lateral view of the elbow.

From the Department of Radiology, Cook County Hospital

(continued from preceding page)



FIGURE 3. Enlargement of Figure 2.

The diagnosis is cavernous hemangioma.

Roentgen findings: The soft tissue shows nodular and diffuse enlargement. Dilated venous channels are seen as strands of increased density in the surrounding subcutaneous fat. Small, round calcifications with a radiolucent center are phleboliths. These account for the pathognomonic appearance. Less commonly, hemangiomas show areas of mottled calcification or ossification. The underlying bony structures show nonspecific changes. These consist of hypertrophy or atrophy, periosteal reaction, demineralization and cortical erosion or thickening of the cortex.

Etiology: Most authors agree as to the congenital origin of the malformation.

Pathology: The normal subcutaneous or muscle tissue is replaced by venous sinusoids. These are lined by flat endothelial cells in single layer. Connective tissue septa of varying thickness divide the intercommunicating blood-spaces. Hemangiomas are essentially benign tumors. Malignant changes occur in less than 1%. Local aggressiveness and recurrence of a histologically benign lesion may render the tumor malignant clinically.

Clinical findings: Hemangiomas are usually apparent at birth, and more than 90% are present by the end of the third decade.

The clinical symptomatology depends upon the location, the rate of growth and the size of the lesion. Single or multiple soft tissue masses, deformity, varicosities, enlargement or atrophy of the involved extremity may cause functional impairment. Sixty per cent of the hemangiomas located in the muscular tissue cause pain of varying character. The cosmetic changes resulting from the lesion may be disturbing to the patient. The increased bloodflow accounts for elevation of the skin temperature. Tourniquet-application proximal to the lesion or placing the affected part in a dependent position may cause enlargement of the tumor due to increase in venous pressure. Bruits or thrills are not present unless the hemangioma is associated with an arteriovenous shunt.

Complications: Include hemorrhage, local aggressiveness, recurrence after excision and malignant degeneration.

Treatment: Superficial hemangiomas often show spectacular results following small doses of radiation. Deep, localized lesions are best managed surgically. Extensive lesions may respond to radiotherapy and sclerosing solutions.

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MEDICINE in the OUT-OF-DOORS

Our Poisonous Snakes

Julius M. Kowalski, M.D., *Princeton*

The Most Courageous Man instantly erupts with goose pimples as he straddles a log and looks transfixed at coiled, buzzing dynamite close to his ill-placed foot. An incredibly swift, forceful strike is immanent; any movement is apt to trigger it. Reflex withdrawal is his only solution.

No poisonous snake in America can strike farther than one-and-a-half times the distance of its body length. The largest and also deadliest is the Eastern diamond-back (Crotalus adamanteus) of Southeastern U.S. Since the authenticated longest specimen of this species is 8 feet, theoretically, its effective strike will not exceed 12 feet on level ground. But the effective strike of a snake is only one-half of its body length since, like a boxer, a snake will not overextend itself and fall into a momentarily helpless state. By striking out only one-half or less of its total length, it possesses control for quick recoil and repeated strikes. The majority of venomous snakes encountered in the wild are less than 4 feet (a 6 foot specimen is a rarity) and therefore, the conclusion is that the usual strike is from a distance of less than 6 feet, and most cover 2 or 3 feet. This length would be proportionately increased, of course, if the reptile strikes from an incline, rocky ledge, bush or similar elevation.

Poisonous snakes have an important place in the overall ecology, for they are primarily predators of rodents — mice, rats, gophers, ground squirrels and rabbits. Amphibians, fish, other snakes, birds and insects are part of their diet at various times. Being cold-blooded, their metabolism and activity are regulated by atmospheric temperature. For this reason, snake bites occur during the warm seasons. In winter they hibernate in protected places — under logs, buildings, in animal burrows and dens. In rocky country as many as a hundred may be found in a single den. They are primarily nocturnal. On hot, sunny days they seek seclusion under bushes, rocks, logs, stumps or other cover. On overcast days they generally are more active in the open.

No American snake will pursue a person, nor are they aggressive such as a dog might be toward a stranger, tall stories to the contrary. For the most part, they are secretive, retiring, and willing to escape an encounter with man if given an opportunity. But when cornered or suddenly intruded upon, they are pugnacious to the end. Even a mouse reacts similarly under comparable conditions.

The poisonous snakes within the United States are classified into two families: the pit vipers (copperheads, cottonmouths and rattlesnakes), and coral snakes. Rattlesnakes are by far most numerous and responsible for the majority of bites. Identification in the field is often difficult for the novice because of color and pattern variation in males and females and young and old prior to and after moults, but the triangular-shaped head with wide base making the forepart of the neck appear especially narrow is characteristic of pit vipers.

The hallmark of a rattlesnake is the rattle on

the end of its tail. In a young specimen about 12 inches long there may be only one button or rattle. A new rattle is added with each moult and usually 2 to 4 are added per growing season. The more terminal ones wear or break off, so determining a snake's age by the number of rattles is not possible. An alarm from this uniquely American creature (rattlers are indigenous only to the Americas) commands an immediate alert from man or beast. The sound, audible to about 60 feet, is variously described as a buzz or like the sound of singing locusts, bacon frying on a hot skillet, or hissing steam. These sound variations depend upon the size and number of rattles and species. Copperheads and cottonmouths and many non-poisonous snakes also vibrate their tails when surprised or agitated. Should such vibrating tail strike against foliage or twigs, the sound could be mistaken for a rattler. On rare occasions a rattlesnake may strike without sounding its rattle. The rattle is never used when stalking prey. It is sounded if the snake is provoked or if a hand or foot has blundered into its immediate environment.

Closer examination of the head of a pit viper (but only on a dead or caged specimen) discloses that the eyes have vertically elliptical pupils and the characteristic pits on either side of the face between nostrils and eyes. This pit often is more prominent than the nostril and is located below and anterior to the eye. The function of this heat-sensing structure was discovered only 25 years ago and because it responds to minute increments of temperature variation, the Air Force and Space Administration are interested in its study. In total darkness, pit vipers will strike inflated toy balloons with uncanny accuracy and always those which are ever so slightly warmer. The pits, being bilateral, permit depth perception, enabling the reptile to attack warm-blooded prey or intruders within its effective striking range, usually less than 6 feet.

Our poisonous snakes — rattlers, copperheads and cottonmouths — have a fang about an inch or less in length on each side of the forepart of the upper jaw. These are hollow and attached to the poison sacs. With mouth closed, the fangs lie flat against the palate, pointing toward the throat. They become erect only when the mouth is fully opened, and as the strike is effected, venom is expressed through them into the tissues. The typical snake bite will show two puncture wounds on the skin, but often only one is seen since fangs are shed periodically. Also, in a glancing strike, the skin may be only abraided or lacerated.

Non-poisonous snakes, however, have two rows of teeth in the upper jaw and one in the lower. All are needle sharp and curve toward the throat. The usual bite of a non-venomous snake will disclose a "U" or "V" shaped wound upon the skin inflicted by numerous sharp teeth which can bleed considerably if a firm hold was made. More often only scratches or abrasions are apparent. When both jaws grasp the side of the hand, a finger or toe, then the two "U's" from upper and lower jaws will approximate an oval configuration.

The coral snake is readily identified in the field by its conspicuous bright red, yellow and black bands. Several harmless varieties also possess similar coloration, but only in the coral snake are the yellow and red bands adjacent to each other. *Yellow — caution; red — stop!* just as one does in approaching a traffic light. It does not have fangs as do pit vipers, but its chewing bite deposits a potent neurotoxin into the wound. Coral snakes are limited to the Southeastern and Gulf Coast states, whereas pit vipers are in all parts of the country from Canada southward.

Prime areas most persons choose for camping, picnicking, fishing and outdoor recreation usually are snake habitat, too — wooded or hilly country near lakes and streams. Before going into *known* poisonous snake territory definite precautions should be taken. The wearing of leather knee high boots with wool socks rather than oxfords or tennis shoes is the first requirement. The wearing of loose trousers is desirable rather than tight riding breeches. About 50 per cent of all strikes occur below the knee. One need not be a doomsday prophet encased from head to foot in knight's armor, but he should be prepared for all eventualities.

Exploring under low foliage, in bushes, around rock piles, ground cavities or overturning larger stones or logs should be done with a stout stick or garden hoe. Children should be kept away from such places unless directly supervised because their enthusiasm for hiding may bring trouble. The picking of flowers,

berries, or other collecting with reckless abandon can result in strikes on the hands and arms where about 45 per cent occur. Always being mindful where one is about to place his hand or foot is good insurance. Using a tent with a sewn-in ground cloth — in good repair without holes or tears — is certainly wise.

Since the American Association for the Advancement of Science conference on venoms in 1956 a number of papers have appeared on this subject. The literature abounds with confusion as to first aid treatment — 1) ligature with cryotherapy, or 2) tourniquet with incision and suction. But all authorities are unanimous in the choice of anti-venom. It is polyvalent for North and South American pit vipers and is a refined and more efficatious product of horse serum origin than former ones. Wyeth Laboratories, Inc. of Marietta, Pa. are the producers, and it has a 4-year shelf life. Anyone contemplating a trip into poisonous snake country at a considerable distance from medical facilities should have this method of treatment explained to him by his physician. Much morbidity, permanent disability of an extremity, or a life can be saved by the use of Antivenin (Crotalidae) Polyvalent, Wyeth, if treatment is started within four hours after injury.

It must be remembered that the bite of a pit viper — rattlesnake, copperhead or cottonmouth — is excruciatingly *painful* almost immediately. There is no mistaking this symptom. Very quickly *swelling* occurs, followed by *discoloration* about the wound site.

The following are recognized and time-honored steps for treating poisonous snake bite in the field. A snake bite kit is most desirable, but it is possible to improvise on the spot.

1. *SEND FOR HELP.* Insist that patient lie down and immobilize the affected part. Activity only increases circulation of venom. Keep patient warm. Absolutely no alcoholic beverages should be given. Identify the snake if possible, but don't waste valuable time looking for it. If the snake has been killed (remember that dead snakes have made strikes on occasion by reflex action), open the mouth with sticks and search for fangs in roof of the mouth. If none are present, then the snake is not a pit viper.

2. *Tourniquet.* A shoe string, belt, strip of cloth or several handkerchiefs knotted together should be tightened about the extremity above the fang marks just firmly enough to make the veins prominent, but not enough to obstruct arterial circulation. There may be only one fang mark or only a laceration from the strike. It will be necessary to move the tourniquet upward on the extremity as the swelling progresses. It should be loosened every 20-30 minutes for several minutes and then retightened.

3. *Incision.* Using a sterile razor blade or sharp knife, make longitudinal cuts about ½ inch long on each fang mark and about ¼ inch deep to promote venom evacuation. Incisions should not be made on fingers or toes by unqualified persons since serious damage can result to underlying structures.

4. *Suction.* Use rubber-glass evacuator of snake bite kit. Suck venom from wound with mouth if no kit is available. Every minute counts. The more venom extracted from the wound immediately after the accident, the better. Venom should be expectorated immediately. It is inactivated by gastric juice and if no lesions are on the lips or gums, no harm will come to the person doing the sucking.

In addition, Edward Press, M.D., Public Health Director of Evanston, Illinois, has suggested squeezing the venom from the wound immediately after the strike. His idea stems from the observation many physicians have made, namely, that after a hypodermic injection into the skin of a patient, several drops of inoculant are frequently seen oozing from the puncture site. If squeezing is done, it should be performed immediately, forcibly and only once since kneading the area will only hasten the spread of venom into surrounding tissues. At most, only a few drops and rarely more than 1cc. of venom are deposited by a strike.

5. *Transportation.* A medical facility is the only place for treatment of poisonous snake bite which can extend over a period of days and sometimes weeks. If a person is alone when the accident occurs, he must keep the affected part as immobile as conditions allow, perform the above steps by himself and *slowly* make his way to aid. Running or fast walking hastens venom distribution by increasing circulation.

Snake bites are variously reported; in some states they are grouped with miscellaneous accidents, and in others they go unrecorded. It has been estimated that there are about 2 thousand bites resulting in 50 fatalities each year. On the other hand, about 400 deaths occur annually in the nation from lightning. In Illinois there were no snake bite fatalities in 1960, the last year for which figures are available, but there were 5 deaths from lightning.

Having some knowledge of snakes and exercising good judgment, it is unlikely than one would encounter a venomous mishap. Travelers to tropical wilderness areas which teem with serpents return after sojourns of many months without having seen a poisonous snake. More than a century ago, all alone and without the aid of a snake bite kit, Charles Darwin made excursions from the *Beagle* into the virgin wilderness of South America — *and did not suffer a single venomous snake bite.*

Some people are lucky!

Responsibility of the Physician To Parents of Mentally Retarded Children

Robert B. Kugel, M.D., *Iowa City*

Parents of Retarded Children turn first to the pediatrician or general physician interested in children for help. Thus, physicians play the important initial role in determining the care and management of these children. As with any illness, approach varies according to individual need; it is unwise to become too stereotyped in our thinking about any group of children.

In the infant with clearly recognizable mental retardation, as in most instances of mongolism, physicians may do the parents an injustice by trying to accomplish too much in too short a period of time. In the past it has been considered good practice to tell the parents that their child is mongoloid, at the same time recommending that the child be placed in an institution as soon as possible.

Perhaps an institutional placement for some of these children may never be in order. In addition, attempts to give parents understanding of a diagnosis and its implications at one sitting is almost never possible. There are many instances where this has been done, resulting only in confusion of the parents. In the crucial, initial conference with parents, there is no room either for maudlin sentimentality or harsh rejection by the physician. What is said also must be considered in light of the parents' attitudes and availability of specialized training.

Associate Professor of Pediatrics, Director of Child Development Clinic, State University of Iowa, Iowa City, Iowa.

From a paper presented at the Annual Meeting of the Illinois State Medical Society, section of pediatrics, May 17, 1961, Chicago, Illinois.

The presence of a mentally retarded child in the home may not be a disruptive force, and can be the reverse. The kind of training now available in some school systems provides opportunities for the mentally retarded child to become useful, independent citizens. To ask parents to make decisions such as early institutional placement of their child at a time when they have not yet recovered from the initial shock of having a mentally retarded child is seldom, if ever, warranted.

Then, too, it is unrealistic to say that the mother has no attachment for this child, for in a very real sense she has been attached to it for a period of nine months. All mothers have dreamed many dreams about their unborn child. To be told that they should never see this child for some may imply that it is a monster, causing the true facts to become horribly distorted. In a recent study[1] it was demonstrated that mongoloid children raised at home were far more advanced in walking, talking, and other phases of development than those raised in an institution from the time of their first birthday or before.

Certainly all parents of mentally retarded children need the compassionate understanding of their physician. Although the parents should be informed of the diagnosis, they need to be helped slowly, patiently, and over some period of time to work out plans for this child which will be appropriate to them, and this will vary widely. This counseling should be positive, yet honest. To this end, a booklet entitled *The Mentally Retarded Child at Home*[2] has proved exceedingly useful. In many areas public health nurses, as an adjunctive service to physicians, have been of immeasurable help to parents of

younger mentally retarded children in coping with day-to-day care problems and in helping the child achieve a far greater degree of self-help skills. It should be stated here that a public health nurse can be of just as much help, and perhaps more, to the private patient as to the indigent.

The older child already in school whose clear mental retardation was not previously diagnosed presents new problems to the parents. It is unfortunate that a vast number of children in the country are being labeled mentally retarded almost exclusively on the basis of an intelligence test given in school and without benefit of any medical investigation. Intelligence tests should be considered primarily as screening devices; although they may indicate something of the child's present level of functioning, it does not necessarily follow that this is a constant level. All children should be carefully, thoughtfully, and completely studied by physicians, including traditional approaches toward etiology. It is not sufficient to say that a child is mentally retarded and believe that this is the diagnosis.

Careful attention to laboratory tests is also important. Frequently, our understanding of mentally retarded children will be greatly facilitated by an electroencephalogram. Without question, any child suspected of being mentally retarded should have at least simple urine screening tests done to detect the presence of phenylketonuria or galactosemia. Vigilance also should be exercised in routine urine screening tests on children six months old or younger in hopes of detecting phenylketonuria before the symptom of mental retardation has developed. This should be a routine test for all older children where some mental retardation is apparent.

One of the additional problems of physician and parents in caring for the mentally retarded child is to realize the obligation to share their responsibility with others. It is important for physicians to become acquainted with the abilities and services of a wide variety of people, including psychologists, social workers, public health nurses, speech therapists, and others dedicated to this work. If they are to be of most help to the child, they will need to know his medical history. Most schools are willing to cooperate fully on such matters as giving a child medication during school time, providing they understand why this is important and what precautions they need to exercise.

Finally, if physicians can help the parents understand the child's limitation and the parents' feeling about the child's limitations, they will have done a great deal to lessen their susceptibility to the unscrupulous purveyor of the pseudo-scientific "cure."

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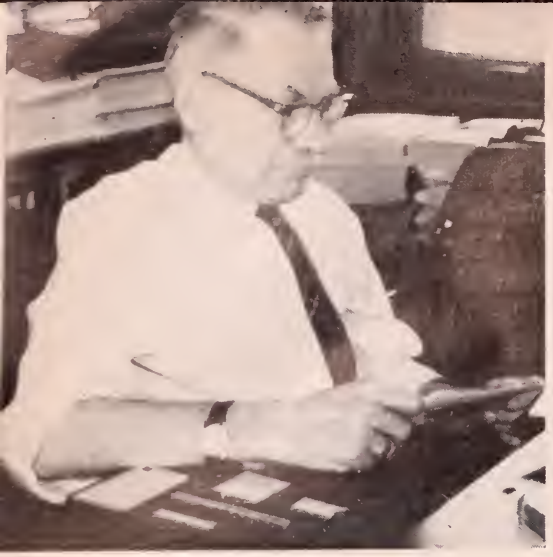
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Sheep in Wolf's Clothing

When a man comes promising to do good for little children and to ease the sorrows of age, anyone who questions him is bound to sound a little like a skinflint who would take candy from babies and push his grandmother out in the cold.

If you think not so, watch what is going to happen to those in Congress bold enough to raise questions about President Kennedy's proposals to meet the urgent needs of the nation's children and the haunting fears of old age that beset the rest of us. Against the emotional wind blown by such imagery, reason is a feeble reed.

Yet somebody had better ask the questions. It is not merely that hidden beneath the tinsel there are a good many prickly nettles; the promise itself is not at all what it seems. For that promise is not simply that society will try to improve its way of taking care of its indigent and helpless, with which aim no man would quarrel; but rather that by this program the Government is going to improve the medical care of all the people. That promise, it seems to us, is pure deceit. *Editorial. Questions on a Modest Proposal. Wall Street Journal, Feb. 13, 1961.*



John A. Mirt

SO WELL REMEMBERED . . .

For many years, Illinois physicians have enjoyed close rapport with the public. One important reason has been the work of ISMS Media Relations Representative John A. Mirt. For the past eight years, until his retirement this June, John has written hundreds of press releases dealing with almost every conceivable medical subject. These have appeared in newspapers and journals throughout the state, and nationally. Although the subjects have been divergent, all were carefully written to keep public favor on the side of organized medicine.

John's acknowledged professional success is based on a simple, yet effective, work formula: First, "think and act like a medical writer, not a PR man." Second, "think positively; tell people what's *right*, not what's wrong." Lastly, "remember that good PR begins with yourself. Sell yourself and you sell your ideas."

The crusading spirit required by a press relations writer is virtually second nature to John. A veteran newspaperman, he once engaged in a crusade against extortionate fees in the reorganization of the Middle West Utilities Company. His series of articles based on the campaign appeared in the *Chicago Daily News*, saving the Utilities stockholders $1 million. In another campaign John upset a mobster's lucrative, noncompetitive towel supply contract with Chicago politicos. "After that I slept with a revolver under my pillow for several weeks," John recalled.

John's long and colorful journalism career began as a copy boy on the *Pittsburgh Sun* before he was 15. Later he was promoted to cub reporter, and at 20 became financial editor. By 1932, John was associate financial editor for the *Chicago Daily News*, leaving that post in 1946 to become Chicago bureau chief for *Newsweek* magazine.

It was while covering medical meetings that John became interested in medical writing, "the side of writing," he reflects, "that over the years has given me the most pleasure." With only one year of high school John had to spend long hours learning medical terms. After much hard work he developed a masterfully clear medical writing style for lay readers.

Public relations work for ISMS has taken John to all parts of the country and brought him in contact with many of the great names in contemporary medicine. Credit for the most outstanding medical personality John ever met goes to our own late and beloved Dr. Andy Hall. "Even in his nineties," John remembers, "Dr. Hall could hold an audience enthralled with his witty anecdotes."

In addition to his achievements in medical journalism, John is a world-renowned scholar of Freemasonry. He has a library of over 400 books on the subject. Many of his articles on Masonry have been translated for publication into French, German and Spanish.

Still another interest of this many-faceted man is describing medical history and illustrating it through postage stamps. He has over 400 postage stamp slides which he has incorporated into an exhibit shown at this year's AMA Meeting. "I'm not interested in the monetary value of the stamps," states John, "only in the medical story behind it." In collaboration with Dr. Philip Thorek, John plans a book on *Medical Pathfinders* illustrated with postage stamps. "This," says John, "will be one of my activities during retirement."

(continued on page 66)

Retirement of John A. Mirt and New Part-Time Status of Jane Swanson Recall Their Years of Service on Headquarters Staff



Jane Z. Swanson

The ISMS Physicians Placement Service ranks with the top four state placement services in the country. Since 1953, it has placed over 275 physicians in towns throughout the state. This record, outstanding as it is, becomes astounding when realized that Placement Secretary Jane Swanson has compiled it almost singlehandedly.

Essentially Jane *is* the ISMS Placement Service. She and Dr. Harold M. Camp established it in 1946 to accommodate physicians returning from service seeking new communities in which to settle; she has kept it functioning in stellar fashion ever since.

The job of fitting the right doctor to the right town is sometimes a delicate and involved one, Jane admits. "Our principle problem is finding physicians for towns of 2,000 or less," she says, "since not many doctors are at first attracted by towns that small."

To these hesitant doctors Jane points out the compensatory advantages of small town practice, such as rapid establishment and financial assistance. "Very often small towns are surveyed to see if they can support a doctor," she relates. "Then too, special loans are provided by individuals and groups. Another attraction is that a physician with limited funds can begin in a small town and later move to a nearby larger one with a hospital, taking his established practice with him."

When a doctor applies to the Placement Service, he is carefully checked out, as are the towns requesting physicians. Each physician applicant is sent a detailed questionnaire; when it has been verified, he is sent a cumulative list of towns (compiled and continually up-dated by Jane) which require physicians. Similarly, towns are sent questionnaires, these being checked through the local county medical society. In this way only those communities which need and can support a physician are placed on the "Available" list.

All this requires endless record keeping; also keeping-up a cross-fire correspondence with towns and doctors. The work often is hectic, but it also has given Jane many rewarding experiences. "In one instance," she recalls, "a small town with over 95 per cent German-Catholic population sought a doctor of the same religion and ethnic background. We were able to find a Catholic doctor, but there was one drawback: he was Mexican. Fortunately, town and doctor hit it off famously."

Determination is perhaps the best word to describe Jane's approach to her job. Until a town finds a doctor or vice versa, she works diligently and tirelessly to see that this is accomplished. Since 1947, she has placed four doctors in one small Adams County town which sought aid that often due to a series of accidents and unfortunate circumstances.

Modestly, Jane hesitates to relate that the story of one of the physicians she placed appeared last fall in the "Chicago Life" feature section of the *Chicago Daily News*. The article, entitled "I Like Being a Country Doctor," described the successful placement of Dr. Robert A. Flinn in Oakland (pop. 1,000).

In addition to her Placement Service duties, Jane miraculously finds time to handle correspondence for the Fifty-Year Club and perform secretarial duties. In the past she has been supervisor of the Headquarters Staff stenographic pool and also membership secretary. As

(continued on page 66)

Chicago Daily Tribune — THE WORLD'S GREATEST NEWSPAPER — Founded June 10, 1847 — FINA

TUESDAY, MAY 29, 1962 — PRICE—SEVEN CEN

VOLUME CXXI—NO 128

RALLY AGAINST MEDICAR

SWAMP DOCTORS ASKING FOR PETIT

Illinois Fills R by I

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Oppone Thru

Growing ev tion to the tration's me prompted the Medical societ fices at 360 N open thru the handle a rising quests for peti the bill.

Dr George F president, said ceeded 2,300 dur Six volunteers h ciety staff to ma applicants yesterd 22,000 have been Lull said

The society is m 24 hour switchboa The telephone numb 2-1654

Daley Order Re Mayor Daley ord Democratic machine a week ago to get 2,5 sons to sign petitions the King-Anderson bil cial security tax rais nance medical care social security recipie persons on railroad ret pensions A flood of pro the medical society was expected by product of I order

The society and other

R. LULL HITS MEDICARE AS 'PURE POLITICS'

Dr George F Lull president of the Illinois State Medical society, charged yesterday that the reported willingness of the Kennedy administration to compromise on the King-Anderson medicare bill, except for social security financing, "should convince even the skeptics of the purely political nature of the measure."

Lull said that the administration's insistence on paying for "limited health care" thru a payroll tax increase, even at the possible sacrifice of key features of the bill, proves that its real concern is not in providing quality medical care for those of the aged who may need it, but in establishing the principle of federalized health care under the social security system.

If there are medical needs of the aged not now being met, the proper concern of the administration should be to work with others in meeting those needs, Lull declared. Rather, the administration is "stubbornly insisting on a financing system that straps added taxes on the working man to provide some health care to millions who don't need help while denying help to millions who may need it."

"Is this evidence of humanitarian concern or simply playing politics at the expense of our elderly citizens?" asked Lull, who retired as a major general after more than 30 years in the army medical corps.

The society president said he doubts that the average worker realizes that, with presently scheduled increases, he may be paying more social security taxes than income taxes.

REPORT MAIL RUNS AGAINST MEDICARE BILL

5 G.O.P. Congressmen Tell of Protests

Five Illinois Republican congressmen reported to the Illinois State Medical society yesterday that their mail is running heavily against passage of the King-Anderson medicare bill, supported by President Kennedy and opposed by organized medicine.

The society quoted Rep Elmer J Hoffman of Wheaton

A.M.A. REPLY TO PRESIDENT ON TV TONIGHT

Plan Repeat of Show on Channel 7

The American Medical association's reply to President Kennedy's request for public support of the King-Anderson medicare bill will be heard and seen again tonight by television viewers in Chicago and suburbs.

Officials of the Illinois State Medical society announced yesterday that voluntary contributions by individual Chicago physicians will enable the presentation of the A M A's opposition to the King-Anderson measure over channel 7 at 6 p m.

The spokesmen will be Dr Leonard W Larson, president of the A M A, and Dr Edward



HEADLINE STORIES of the ISMS counter campaign against Mayor Daley's King-Anderson petitions related the flurry of activity at Staff Headquarters. Three volunteers who gave up part of a weekend to address requested petitions against King-Anderson are shown working in the headquarters office. They are (from left) Miss Sarah Jeanne Miley, Mrs. Robert A. Redfer, 437 Ridge Avenue, Evanston, and Sarah's mother, Mrs. Frank R. Miley, 2400 Harrison, Evanston.

Battle of the Petitions

ISMS makes progress—and headlines—against King-Anderson Bill

Public indignation over Mayor Daley's pressure tactic petitioning for passage of King-Anderson triggered a headline-making series of counteractions by the State Society in the past two months which stymied the mayoral effort.

The series of events, coined "Battle of the Petitions" in the press, unfolded in this order:

Thursday, May 24 — Chicago's Mayor Daley announced that his Committeemen were going to solicit for the signing of petitions favoring passage of King-Anderson. Public reaction was instantaneous; citizens not only in Chicago but throughout the state called the Society, asking what could be done to "fight back."

Friday, May 25 — ISMS President Dr. George F. Lull answered these unsolicited requests by announcing that the State Society would make available petitions against King-Anderson to "all interested citizens." Each petition has room for 19 signatures. Addressed to the U. S. Congress, it states:

"We, the undersigned, hereby petition the Congress of the United States to reject HR-4222, the so-called King Anderson Bill, or any other system of compulsory medical care to the aged to be financed through Social Security."

Monday, May 28 — Staff headquarters was the scene of a press conference in which Dr. Lull deplored the city's administration's pressure tactics. Meanwhile, the switchboard was flooded with calls from citizens throughout the state, requesting petitions. (*For some of their comments, see next page.*) Although 10 lines were open to receive calls, over 1,200 busy signals were received between 10 and 11 o'clock. By day's end, roughly 1,500 requests for petitions, made by phone and in person, were filled by the Headquarters Staff.

Tuesday May 29-Sunday, June 2 — A 24-hour answering service was instituted at Staff Headquarters, with volunteers and Staff personnel working shifts. On Memorial Day, they continued to work as the requests came in without letup. That evening, the counter campaign gained further impetus from a local re-telecast of Dr. Edward R. Annis' famous speech in Madison Square Garden. The program was made possible through volunteer contributions by Illinois physicians.

In the four-day period, ISMS answered more than 2,300 telephone requests for over 22,000 petitions.

Wednesday, June 20 — ISMS presented a special televised documentary report on the challenges of "The Retired Years." It was the first in a series called "Medicine Reports to the People" exploring current medical problems and practice.

By this date, the Society had received a total of 3,886 telephone requests for 39,519 petitions against King-Anderson. Thousands of additional petitions had been requested in hundreds of letters.

Box Score

The petitions requested accommodate a total of nearly one million signatures, and it is estimated that another million signatures have been placed on petitions prepared by individuals and other organizations. This unsolicited response overwhelmingly demonstrates the people's opposition to King-Anderson and any high pressure tactics used to force its passage. As Dr. Newton DuPuy, ISMS Chairman of the Board of Trustees commented, "The Mayor opened a Pandora's Box, and his request for a 'ton of petitions' has backfired."

Citizens Speak Up For Petitions Against King-Anderson

The following comments made over the telephone by persons requesting petitions against King-Anderson are typical of the thousands received recently at ISMS:

Elderly woman — "I am in bed convalescing from a heart attack, and even though I can't go out I want to do my part in fighting King-Anderson. I'm calling all my friends and alerting them to the issue and asking them to get petitions and have them signed."

Young mother — "I have a newborn infant so I can only take one petition now. It's the best I can do now, but I'll ask for more later."

School teacher — "I saw one of Daley's committeemen in our schoolyard getting signatures for King-Anderson from all the children."

Woman with chronic heart condition — "I can't leave my hotel, but I'm going from room-to-room getting signatures and asking friends to go up and down the block with petitions."

Grain broker — "I saw government intervention ruin my business and don't want the same thing to happen to medicine."

Delver for facts — "I heard friends discussing the K-A bill and decided to learn more about it. When I had read up on it I could see it would lead straight to Socialism."

Mother — "What the young people fail to realize is that they'll be paying for all this."

Lawyer — "I was for King-Anderson, until someone asked me if I wanted the government to control the legal profession, too. That changed my mind in a hurry."

Woman — "I got a busy signal 19 times, but this fight is too important to stop trying."

Mother of 7 — "We're rather tied down with the children but send us petitions and we'll mail them to friends for signatures."

John Mirt *(continued from page 62)*

Other retirement activities include freelance press relations work in Chicago "during the summer months" and a "life of leisure" with wife Ruth in Mexico during the winter.

John's affiliations include associate membership in the National Association of Science Writers and membership in the American Medical Writers' Association. "Although technically I am a PR man," John says, "I'm still a newspaper man at heart."

As a nationally famous writer, much has been written of John. In *Newsweek,* former Chicago Mayor Kelly is quoted as saying, "John, I often didn't like what you wrote, but you've always been completely honest." A reference to his investigative work in *Blurbs,* a Chicago Publicity Club publication, says "He was the little man who was always there and they didn't see him." An editorial in *Finance* said of him "The crash of the Insull utility empire brought . . . national fame to this personable digger for the facts and searcher for the truth." To these formidable accolades we add: Illinois medicine, and American medicine is much the better for John Mirt. His absence will be sorely felt.

Jane Swanson *(continued from page 63)*

of July 1, she began part-time status, limiting her activities to the Placement Service only. She admits that this new arrangement will give her more time for husband Bob and for their home.

In time of service Jane is one of the real veterans of the ISMS Staff. She received her B.A. degree from Monmouth College in 1936. In 1942, she joined the Staff and has been a full-time employee ever since. Her knowledge of members and functions is unequalled. Frequently consulted as a final authority on some aspect of the Society, she always complies — with a willingness and friendliness that have become her trademarks.

We all congratulate Jane for her years of record-making service with the Society. Although changing to part-time status, we know that she will maintain the high standards of the Physicians Placement Service which she has done so much to establish.



Editorials

Fat Content of the Diabetic Diet

Prior to the discovery of insulin, diabetes was treated by starvation. Newburgh[1] in 1920 was the first to observe the benefits of feeding a diet generous in fat. When a farmer was given 900 calories with 85 grams of fat daily, his severe diabetes improved in two weeks. Despite a gradual increase in intake to 230 grams daily during 65 days, blood lipids fell progressively. Even after the advent of insulin therapy, a desugarizing regime using a carbohydrate to fat ratio of 1:2 was tried initially. Most authorities advised a ratio of 1:1 or 3:2 if insulin was required.

In recent years the recommended carbohydrate allowance has risen. Some physicians have used a "free" diet containing a proportion of carbohydrate equivalent to that eaten by nondiabetic persons. There has been a growing feeling that the degenerative complications of diabetes are somehow related to accumulation of circulating lipids and that this should be controlled by restricting fat intake. A current text[2] states that the amount of fat ingested by American diabetics may be excessive and that it should be limited. This opinion is based on the idea that dietary fat contributes to hyperlipemia and to the development of atherosclerosis. Good evidence for this concept is lacking. Recent experiments indicate that the carbohydrate content of the diet is more important than lipid producing diabetic hyperlipemia and that it is reasonable to again raise the level of dietary fat.

The proportion of fat in a meal inhibits gastric motility and increases the period necessary for absorption and utilization of a food mixture. This property functions to minimize postprandial hyperglycemic peaks and glycosuria. Dietary protein also supplies carbohydrate to be made available slowly. Excessive carbohydrate produces difficulties with diabetic control, especially in more severe cases, since glucose is metabolized slowly in the presence of insulin deficiency. Such poor balance is often associated with hyperlipemia and correction of the problem may restore normal blood lipids. Elevation of the circulating lipids, particularly fatty acids and triglycerides, and to a lesser extent cholesterol and phospholipids, can be demonstrated in many diabetic persons.[3] This is probably due to a relative defect in glucose utilization with increased lipid mobilization from fat depots. The hyperlipemia has been correlated with the presence of vascular disease.

Van Eck[4] described a reduction in serum lipids in 10 of 11 diabetics who followed a limited fat program (20 gm. daily) for one to two years. Glucose tolerance was increased and retinopathy was improved. Such a regime is recommended for patients well controlled with insulin who still exhibit retinopathy and hyperlipemia. However, many patients have hyperlipemia when fed larger amounts of carbohydrate, perhaps related to poor control of their diabetes. Bierman and Hamlin[5] recently demonstrated that insulin-dependent diabetics ex-

Guest editorial by Arthur R. Colwell, Jr. M.D., Departments of Medicine, Evanston Hospital and Northwestern University Medical School.

While the Nutrition Committee of the Chicago Heart Association is sponsoring this article, the opinions expressed are those of the authors and do not necessarily represent the official view of that committee.

hibited a hyperlipemie response to isocalorie substitution of carbohydrate for fat in the diet, in the absence of elevated insulin requirements. The triglyceride in the plasma probably circulated as low density lipoproteins, originating from synthesis and esterification of fatty acids.

In an editorial reviewed by the Committee on Food and Nutrition of the American Diabetes Association,[6] Pollack recommends a fat-rich diet for treatment of diabetes. If such a diet derives its fat content largely from meat dairy fats and eggs, it will often produce hyperlipemia despite maintenance of normoglycemia by the use of depot insulin. If such a diet contains vegetable fats adequate in polyunsaturated fatty acids, blood lipids will remain normal or low.

The short-term experiments cited fail to prove that vascular disease is a function of prolonged hyperlipemia in the diabetic patient. This complication could just as well be a result of some other metabolic defect related to insulin deficiency or to a genetic disturbance acquired in conjunction with the diabetic tendency. However, in the absence of critical evidence to the contrary, a return to the old-fashioned principles of dietary control of diabetes is encouraged. Those who advocate feeding excessive amounts of carbohydrate to patients having reduced tolerance should be called upon to prove that this does not impair diabetic control, cause hyperlipemia or produce vascular disease. A thoughtful program includes the administration of a generous fat diet (carbohydrate to fat ration, 3:2 or less) to qualified diabetics having hyperlipemia. Carbohydrate intake should be limited sufficiently to permit good control of blood glucose. Patients having less severe disease not accompanied by hyperlipemia or requiring insulin therapy do not need to follow this advice. Ratio of polyunsaturated to saturated fatty acids should be sufficient (at least 2:1) to maintain normal blood lipids. It does seem likely that correction of the derangement in carbohydrate metabolism is necessary to control the lipid defect.

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Physician Image and the Press

The physician image is an honored trust each one of us is obliged to uphold. This should be borne in mind especially by the physician who speaks of his profession in public or allows himself to be quoted in the lay press. Overstating and overgeneralizing the problems of medicine in public and unwittingly allowing these comments to reach a nationwide readership via the newspapers can do great disservice, and sometimes irreparable harm, to the physician image.

A case in point is a recent news release quoting Dr. Herbert Ratner, professor of preventive medicine and public health at Loyola University Medical School and the Oak Park Commissioner of Health. Dr. Ratner, according to the release, states that America is the "most over-medicated, most over-operated, most over-inoculated country in the world." It goes on to quote Dr. Ratner as saying that a large share of the blame for the poor state of American health may be placed on "our failure to develop and maintain a sound dynamic philosophy of medicine and to teach and practice medicine in the light of it. . . .

"We impose our lifesaving drugs and techniques . . . on minor, even trivial illnessess . . . illnesses that are self-limited and that, except for occasional symptomatic relief, do better without interference from the physician."

The news release, which is 15 pages long and filled with quotes from Dr. Ratner on all aspects of the poor health of Americans and on the practice of medicine, was prepared from a pamphlet issued by the Center for the Study of Democratic Institutions, founded by the Fund for the Republic, Inc. It is one of a series being published in medicine by the Center as part of its Study of the American Character. It is indeed unfortunate that so dark an image of the

Reference Page Number 33

Normal Laboratory Values of Clinical Importance—Part 3.

BONE MARROW

Relative Number of Nucleated Cells in Normal Bone Marrow

	Range	Average
Myeloblasts	0.3-5.0	2.0
Promyelocytes	1.0-8.0	5.0
Myelocytes: neutrophilic	5.0-19.0	12.0
eosinophilic	0.5-19.0	1.5
basophilic	0.0-0.5	0.3
Metamyelocytes ("juvenile" forms)	13.0-32.0	22.0
Polymorphonuclear neutrophils	7.0-30.0	20.0
Polymorphonuclear eosinophils	0.5-4.0	2.0
Polymorphonuclear basophils	0.0-0.7	0.2
Lymphocytes	3.0-17.0	10.0
Plasma cells	0.0-2.0	0.4
Monocytes	0.5-5.0	2.0
Reticulum cells	0.2-2.0	0.2
Megakaryocytes	0.03-3.0	0.4
Pronormoblasts	1.0-8.0	4.0
Normoblasts	7.0-32.0	18.0

URINE

Acidity, titratable 200-500 ml. N/10 alkali/24 hours
Amino nitrogen 0.4-1.0 gm./24 hours
Ammonia 20-70 mEq./L./24 hours
Amylase (Somogyi) 260-950 mg. of glucose/24 hours
Calcium 0.1-0.7 gm./24 hours
Copper 0-25 μg./24 hours
Corproporphyrins (Type I and Type III) 100-600 μg./24 hours
Creatinine 1.0-1.6 gm./24 hours
"11-oxysteroids" or "corticoids" (Porter Silber method) 3.0-10.0 mg./24 hours
Estrogens (Jailer method):
- Male 5-20 μg./24 hours
- Female (nonpregnant) 15-100 μg./24 hours depending on time of menstrual cycle

Gonadotrophin (Levin and Tyndall):
- Male 5-30 mouse uterine units/24 hours
- Female 5-100 mouse uterine units/24 hours depending on time of menstrual cycle

Pregnanediol (Marrian-Sommerville method):
- Male 0-1.5 mg./24 hours
- Female (nonpregnant) 3-10 mg./24 hours in second half of menstrual cycle

17-Ketosteroids (Holtorf-Koch method):
- Male 8-20 mg./24 hours
- Female 6-15 mg./24 hours

Urobilin up to 1:20 dilution
Urobilinogen less than 4.0 mg./24 hours

STOOL

Bulk	100-200 gm. daily
Dry matter	23-32 gm.
Fatty acid combined as soap, % of dry matter	4.6%
Free fatty acid, % of dry matter	5.6%
Neutral fat, % of dry matter	7.3%
Neutral fat, % of total fat	42%
Nitrogen excretion	less than 1.7 gm./day
Protein content	minimal
Total fat, % of dry matter	17.5%
Urobilinogen	100-250 mg. in 24 hours
Water content	approximately 65%

CEREBROSPINAL FLUID

Cells	fewer than 5 per cu. mm., all lymphocyte
Chlorides as NaCl	120-130 mEq./L.
Colloidal gold test	not more than one in any tube
Glucose	45-65 mg./100 ml.
Pressure	100-200 mm. water
Protein	15-45 mg./100 ml.

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from the Illinois Medical Journal

JULY, 1962

American physician has been the one chosen for official documentation.

Dr. Ratner is further quoted as saying that the U. S. has become a "nation of presumably healthy persons who cannot function well because they are full of anxieties . . . One out of every 10 babies will enter a mental hospital at some time in his life. A recent house-to-house count in one community indicated that one out of every eight Americans suffers from a psychiatric disturbance severe enough to warrant treatment." To this we wonder whether the survey was made by psychiatrists or whether the diagnosis was made on anyone given a tranquilizer.

The release also quotes Dr. Ratner as saying that "we are flabby, overweight and have a lot of dental caries. . . . Our gastrointestinal system operates like a sputtering gas engine. We can't sleep, we can't get along when we are awake, we have neuroses, we have high blood pressure." Speak for yourself, Dr. Ratner, or perhaps for the citizens of Oak Park.

Dr. Ratner, the release continues, thinks that the public, the medical profession, and the medical schools all have contributed to the sorry state of American health. The tirade goes on, "In many areas of bedside medicine . . ." the modern medical student is "inadequate," compared to the physician of Hippocrates' day. He thinks that the doctors badly need "a genuine philosophy of medicine with its resultant training of the mind." Such a philosophy, he contends, is "what contemporary products of our medical schools do not get. They become, instead, sitting ducks for the canned speeches of drug house retail men." The modern medical school, Dr. Ratner declared, "is really not much different from the veterinary school. It could, for the most part, just as well have the horse for its subject."

The remaining 10 pages of the release deal with Dr. Ratner's ideas on specialists, hospitals, obstetrics, and drugs. "We are becoming a pill-swallowing civilization, and God help us as a nation and as individuals when the new contraceptive pill really gets going."

In a discussion of health programs, Dr. Ratner says that, "The medical profession has the obligation to see to it that every patient has the medical care he needs, and if this means what they call socialized medicine, the medical profession has to be ready to accept it."

It would be well for all of us to remember that newspapers are not obliged to print a news release in its entirety, and may well select only those quotes which best suit their own editorial slant. Needless to say, their editorial policy is not always commensurate with the best interests of medicine.

A famous president once advised our nation to "walk softly and carry a big stick." Perhaps an apt paraphrase for today's physician would be, "Talk softly and preserve a good image."

Senate Pat on Patent Provision

According to Austin Smith, president of the Pharmaceutical Manufacturers' Association, the Senate subcommittee on patents has recommended against enactment of the provisions of S. 1552 which would require compulsory licensing of drug patents after three years. This provision would have retarded the pace of drug research and the discovery of valuable new drugs.

It is Dr. Smith's opinion that the industry has enough support to require manufacturers to provide substantial evidence of the effectiveness of new drugs, improved factory inspection, tightening of amphetamine-barbiturate distribution controls and other protective measures for the public.

Directory of Safety Films

The American Academy of Pediatrics has come out with a Directory of Safety Films edited by its Accident Prevention Committee. The booklet catalogues motion pictures on the subjects of baby sitting, bicycle, farm, fire firearms, first aid, home, pedestrian, swimming, traffic, and general safety suggestions. Many films are suitable for adults as well as children; a description of each indicates the age group to which it is directed, along with the running time and where it may be obtained.

The major film libraries are noted by states, and local and national sources for films and producers, depositors, and sponsors are listed.

Copies are available to laymen or physicians without charge by writing the Academy headquarters at 1801 Hinman Ave., Evanston.



Detection Preferred to Prevention

There were rumors that some young physicians objected to the Cancer Prevention Center of Chicago. The term "prevention" bothered them the most because they were doubtful whether the organization knew the cause of cancer. They thought that the public was being misled by the name. They have a point, and it may explain why most centers of this type concentrate on early detection and will forego prevention until the cause is known.

Fats 'n Figures

The incidence of obesity was mentioned in a recent *Lancet*, and the author added "it is more likely to be due to underactivity than overeating — the evolution of a species, *Homo sedantarius,* who pulls knobs and flicks switches . . ."

A nonstatistician had this to say in the same journal: "statistics are used as an inebriated gentleman uses a lamppost, not for the light it casts on the subject, but for the support it gives his position."

The Good Life

According to the old reliable Metropolitan Life Insurance Company, men retired from the company are hospitalized more frequently than their wives or the women who have retired from the company. The average hospital stay is longest for the retired woman and briefest for the wives of the retired men. On the other hand, men hospitalized for surgery usually remain in the hospital for longer periods than do women.

Diaper Rash-ionalizing

The Diaper Service Industry Association has an alert public relations department. They recently listed the most common false ideas about diaper rash that modern mothers hold. The first is that the condition is more likely to occur in summer; the next that only tiny babies are subject to the condition; thirdly, that it is something all babies have to go through; and lastly that it is not really dangerous to baby. It is one way to get the mothers on the defensive and concentrate on prevention.

Quacks and the Public

Thomas T. G. Reynolds, Palestine, Texas, has been sent to jail for two months for violating the terms of his probation by continuing to peddle the worthless Koch cancer treatment. Quacks die hard. The FDA found that he never stopped his activities despite the government's injunction and his probation.

Capsules of safflower seed oil are not effective as an aid in reducing, the FDA has charged in two misbranding cases involving the best-selling diet book "Calories Don't Count." The book was written by Herman Taller, M.D., an obstetrician and gynecologist. It was being used to make false and misleading claims for CDC (Calories Don't Count) capsules and Whelco Safflower Oil Capsules sold in United Whelan Drugstores. The two products are identical in the declared composition, according to the FDA. The American public put two highly questionable books that reek of quackery on the best seller list during the past few years. It is not complimentary to our reading public.

(continued on page 74)

skeletal muscle spasm is

tractable

with **Trancopal®**

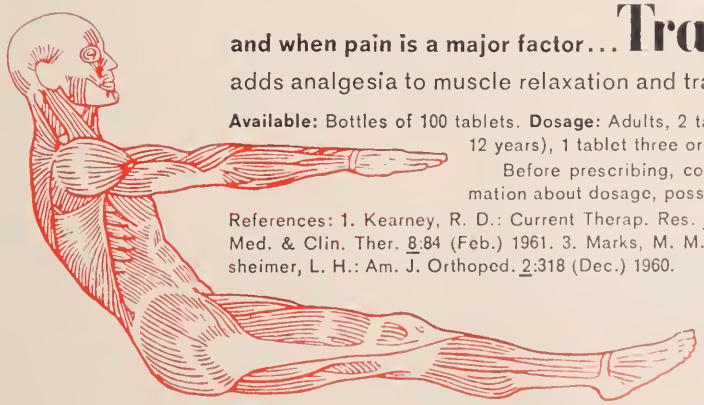
brand of chlormezanone

Low back pain and other skeletal muscle spasms are tractable disorders when you treat them with Trancopal, the relaxant that quickly eases the spasm and gets the muscle moving. You have a more tractable patient with Trancopal, too —its mild tranquilizing action makes him less irritable, better able to bear his discomfort, more willing to cooperate in physiotherapy.

These two complementary actions of Trancopal are commented on in many recent reports; e.g., Kearney[1] states: "...Trancopal has proven to be an extremely effective striated muscle relaxant and subcortical tranquilizer." Cornbleet,[2] discussing the use of Trancopal in dermatologic practice, comments: "Noteworthy was the soothing effect of chlormezanone without interference with normal activities or alertness... Patients were found more tractable and easier to control."

Marks[3] found that in patients with backache "...Trancopal offered considerable relief by alleviating both apprehension as well as musculoskeletal discomfort." Hergesheimer[4] comments: "...Trancopal acts to reduce the initial painful spasm and to allay anxiety, resulting in a cooperative patient whose subsequent recovery and return to work is accomplished more quickly."

Available: 200 mg. Caplets® (green colored, scored), 100 mg. Caplets (peach colored, scored), each in bottles of 100. **Dosage:** Adults, 200 mg. three or four times daily; children (5 to 12 years), from 50 to 100 mg. three or four times daily.



and when pain is a major factor... Trancoprin® ASPIRIN (5 GRAINS) 300 MG. TRANCOPAL 50 MG.

adds analgesia to muscle relaxation and tranquilization

Available: Bottles of 100 tablets. **Dosage:** Adults, 2 tablets three or four times daily; children (5 to 12 years), 1 tablet three or four times daily.

Before prescribing, consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

References: 1. Kearney, R. D.: Current Therap. Res. 2:127 (April) 1960. 2. Cornbleet, T.: Antibiotic Med. & Clin. Ther. 8:84 (Feb.) 1961. 3. Marks, M. M.: Missouri Med. 58:1037 (Oct.) 1961. 4. Hergesheimer, L. H.: Am. J. Orthoped. 2:318 (Dec.) 1960.

Winthrop LABORATORIES
New York 18, N. Y.

169GM

(continued from page 72)

What's New

Zenith's new Sentry hearing aid has controlled Dynamic Range (CDR). This device controls extremes of volume instantaneously so that the children can slam the door or lightening can strike the garage without the user being knocked for a loop. But the Sentry also amplifies faint noises or muffled voices in a quiet environment for greater clarity. The retail price for the Sentry is $250.

Westinghouse has a new inflatable vinyl plastic pad with 20 air tubes running the length of the bed. These tubes are divided into two sets which alternately inflate and deflate. This Pad-O-Matic system forms a slowly undulating surface which changes the points of support under the patient's body to promote the circulation of blood and help prevent bedsores.

Urethane foam mattress cores and pillows incorporating bis(tri-n-butyltin) oxide to absolutely prevent odor formation and inhibit the growth of most bacteria, germs and fungi within and on the foam surface are now available from Urethane Corporation of California.

A new clotting agent, autoprothrombin C, was described at the national meeting of the American Chemical Society as "the most powerful clotting factor known, except for thrombin." Both substances are enzymes, and both come from prothrombin, an inactive material present in normal blood.

The RCA Service Company and Executone, Inc. are offering to hospitals a package deal that includes RCA television systems and the latest Executive communications equipment. This also includes audio-visual nurse call, radio and staff paging and register systems.

A new, highly advantageous plastic material, Curvon, is being used for splints and orthopedic appliances. It is light, flexible, and molded from sheets using any suitable oven or a special oven developed by the manufacturers. This Curvlite surgical product is produced from high density linear polyethylene. It has considerable strength (400 pounds per square inch) and is easily machined, fabricated or molded.



THE HEUER TIMER CORPORATION developed a new multipurpose timer that permits direct reading of pulse or respiration rate. Readings are obtained from counting only five respirations or 10 pulsations.

CGC introduced recently their electronic larynx, Model 410, designed to help regain the mechanism of speech easily and clearly. The 410A is a low pitch model for men, and the 410B vibrates at a higher pitch for women. The unit houses an oscillator circuit that builds up a current on two coils that causes a diaphragm to vibrate. The latter is placed against the larynx, and pressure from the larynx muscles interrupts this vibration, causing the necessary sounds of a word to be formed. The pressure can be modulated by a precision potentiometer to give various tones.

The Soviet Union has developed a simple lightweight artificial larynx, according to the Medical Tribune. It consists of a thin tube containing a miniaturized vibrator, generator, and long-lasting batteries. According to the report, the vibrations produced by the instrument also are modulated by the normal vocal resonating and phonating chambers of the head, mouth, tongue and lips. The outcome is a clear, loud and readily comprehensible speech.

(continued on page 76)

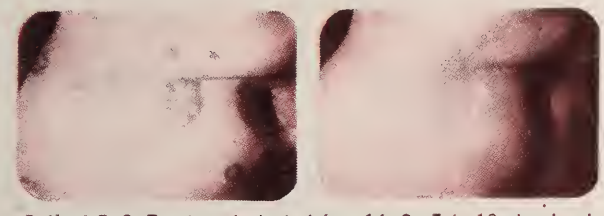
FOR PSORIASIS—ESPECIALLY IN INTERTRIGINOUS AREAS

ALPHOSYL® LUBRICATING CREAM

REMOVES SCALES! REDUCES ERYTHEMA! RELIEVES IRRITATION!

Now! The Clinically Proven ALPHOSYL Formula in a New Cream Base that Simulates Natural Skin Lipids!

Marked success in treating psoriasis—especially in intertriginous areas—is reported with new Alphosyl Lubricating Cream.[1] In a study of 96 psoriatics, 73 patients experienced 75% to 100% clearing—15 showed 50% to 75% clearing.[1] Alphosyl Lubricating Cream not only helps remove scales and reduce erythema, but a new cream base affords added lubrication between the skin folds.



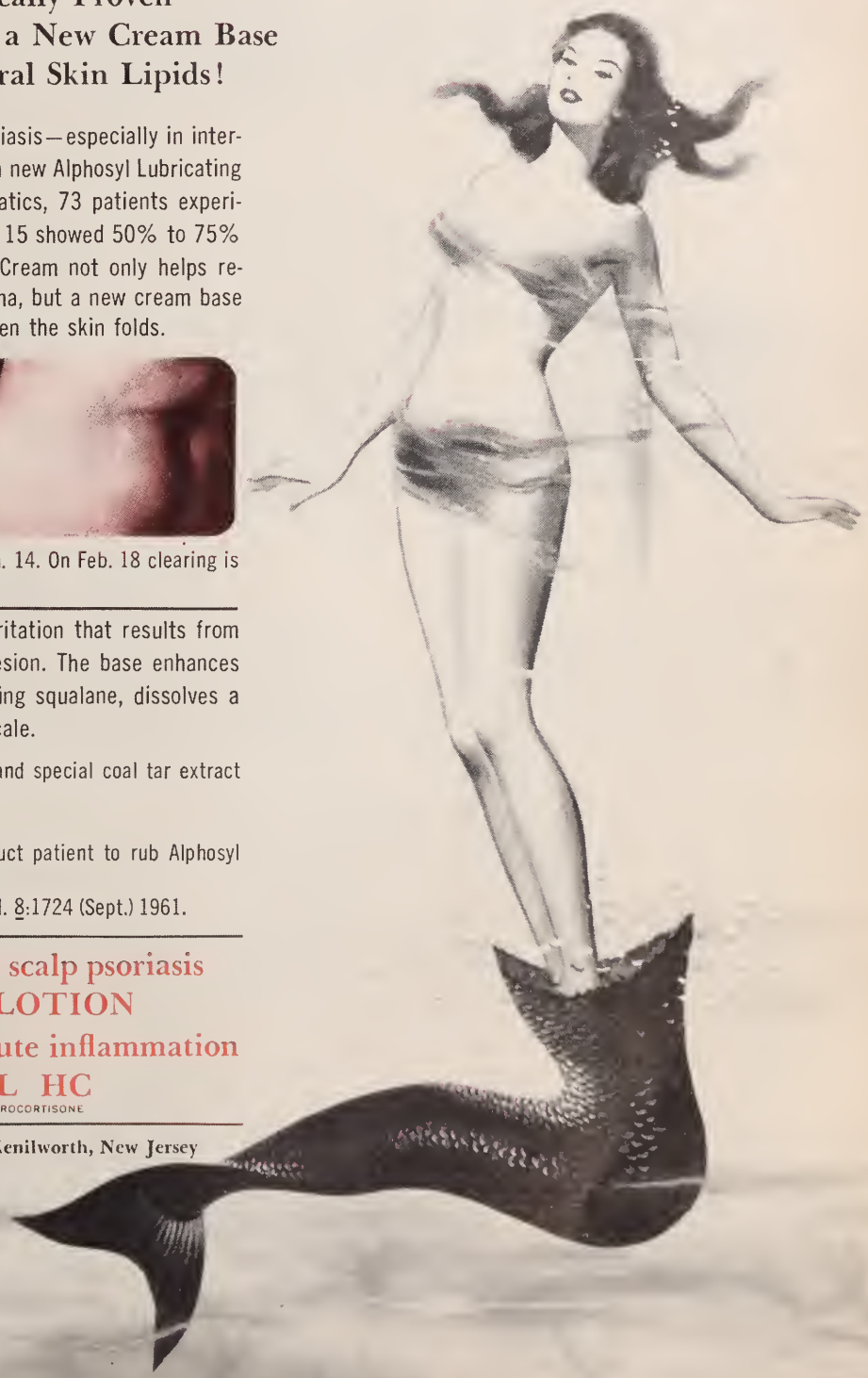
Patient E. C. Treatment started Jan. 14. On Feb. 18 clearing is almost complete.

Thus, it prevents the painful irritation that results from the rubbing of lesion against lesion. The base enhances moisture retention and, containing squalane, dissolves a cement substance in psoriatic scale.

Active Ingredients: Allantoin 2% and special coal tar extract (Tarbonis®) 5%.
Supplied: In tubes of 60 Gm.
Important Therapeutic Note: Instruct patient to rub Alphosyl vigorously into the skin.
Reference: 1. Bleiberg, J.: Clin. Med. 8:1724 (Sept.) 1961.

For generalized and scalp psoriasis
ALPHOSYL LOTION
For psoriasis—with acute inflammation
ALPHOSYL HC
LOTION WITH 0.25% HYDROCORTISONE

REED & CARNRICK / Kenilworth, New Jersey



(continued from page 74)

Fireflies and ATP

An extract of dehydrated firefly tails is used to measure the energy status of cancer cells. The adenosine triphosphate (ATP) content of the cell is the best indication of the energy status. When ATP is extracted by solvents from cancer cells and mixed with firefly extract, light is produced at an intensity which is directly proportional to the concentration of ATP. If the opposite is true, we might assume that the firefly turns on the ATP when he wants to light up.

Deaths from Fires

During 1961 more than 11,700 persons were killed in fires—almost 1,000 people a month. Approximately 6,100 of these individuals died in fires in their own homes. Almost 30 per cent were children. Property destroyed by fire hit a record high of approximately $1,615,000,000. According to the National Fire Protection Association, the 1961 number of fire deaths was the highest since 1954 when 12,100 died from this cause.

Trailer Homes in Illinois

More than 60,000 Illinois residents are living in trailer coaches, according to Dr. Franklin D. Yoder. The sanitary problem is carefully watched by the Illinois Department of Public Health, which has licensed trailer camps since 1953. Approximately 1,450 inspectional visits were made in 1961 among the 680 registered parks with 24,000 spaces. Close supervision is necessary to avoid unsatisfactory environmental sanitation associated with mobile home living. Almost 97 per cent of all trailers used in Illinois are occupied as homes and not as travel units.

Cancer Detection Aid

Molds of the sigmoid and descending colon can be made with a liquid silicone (containing a catalyst) that changes into solid rubber within a few minutes at body temperature. It has been used successfully on more than 80 persons ranging from 6 to 80 years of age.

The silicone foam is administered as an enema. The mold is expelled 15 minutes later and examined in detail for evidence of polyps, diverticula, ulcers, and other intestinal lesions. The suspicious areas of the casts are washed in Ringer's solution and smears made for cancer cells. The process is painless, and there is no injury to the mucosa.

To the Editor:

I am a hay fever victim who has hit upon a cure for hay fever—Efficiency—100%.

The therapy is:

Don't sniffle.

Don't blow your nose after sneezing.

Blot surplus fluid with the corner of a handkerchief.

The fluid that comes in the nose after sneezing is nature's own antibody (remedy). This fluid if left in the nostril undisturbed dries on the nasal membrane leaving a protective filter against the irritation the nasal membrane suffers with each whiff of pollen.

You will sneeze about once every five days. The new sneeze will replenish the old protective coating.

Do try it. It only takes about five to ten minutes of will power about once a week.

Remember:

Don't sniffle.

Don't blow.

Wait for the fluid of the sneeze to dry on the nasal membrane.

This therapy will correct sinusitis, and prevent one being susceptible through respiration to the common cold.

Elmwood Park, Ill.

Turnips for the Bugs

I know now why I never liked turnips. Chemists from the University of Wisconsin discovered that they contained a potent new insecticide. The compound, 2-phenylisothiocyanate, has been known to chemists for some time. It must be comparatively nontoxic to humans because they have been eating turnips for centuries. Its insecticidal qualities were noted accidently when the product killed vinegar flies that were placed in jars containing the raw mash.

(continued on page 80)

when postoperative infection complicates convalescence...

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

for broad antibacterial action

The incidence of postoperative wound infections, particularly among debilitated patients, presents a serious hospital problem.[1] These infections are caused in many cases by strains of staphylococci resistant to most antibiotics in common use.[1,2,3] In such instances, CHLOROMYCETIN should be considered, since "...the very great majority of the so-called resistant staphylococci are susceptible to its action."[4]

Staphylococcal resistance to CHLOROMYCETIN remains surprisingly infrequent, despite widespread use of the drug.[2,4,5-7] In one hospital, for example, even though consumption of CHLOROMYCETIN increased markedly since 1955, there was little change in the susceptibility of staphylococci to the drug.[7]

Characteristically wide in its antibacterial spectrum, CHLOROMYCETIN has also proved valuable in surgical infections caused by other pathogens—both gram-positive **and** gram-negative.[7,8]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100.

See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections such as colds, influenza, or viral infections of the throat, or as a prophylactic agent.

Precautions: It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

References: (1) Minchew, B. H., & Cluff, L. E.: *J. Chron. Dis.* **13**:354, 1961. (2) Wallmark, G., & Finland, M.: *Am. J. M. Sc.* **242**:279, 1961. (3) Wallmark, G., & Finland, M.: *J.A.M.A.* **175**:886, 1961. (4) Welch, H., in Welch, H., & Finland, M.: Antibiotic Therapy for Staphylococcal Diseases, New York, Medical Encyclopedia, Inc., 1959, p. 14. (5) Hodgman, J. E.: *Pediat. Clin. North America* **8**:1027, 1961. (6) Bauer, A. W.; Perry, D. M., & Kirby, W. M. M.: *J.A.M.A.* **173**:475, 1960. (7) Petersdorf, R. G., *et al.*: *Arch. Int. Med.* **105**:398, 1960. (8) Goodier, T. E. W., & Parry, W. R.: *Lancet* **1**:356, 1959.

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PARKE-DAVIS

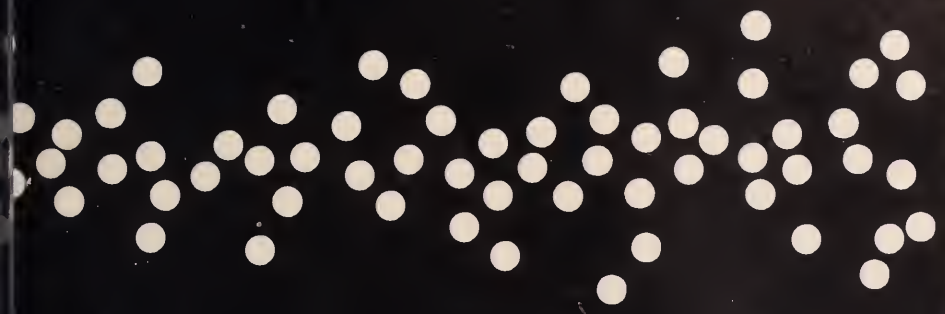
PARKE, DAVIS & COMPANY, Detroit 32, Michigan



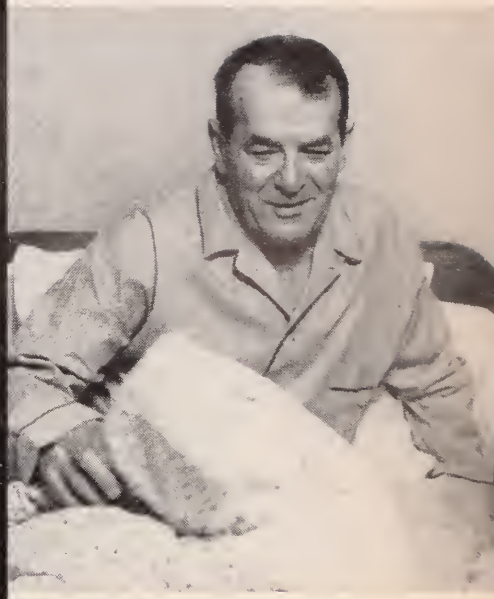


Thanks to 135 tiny "doses" throughout the

*Trademark, Reg. U.S. Pat.Off. Copyright 1962, The Upjohn Company



night, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.

(continued from page 76)

Facts of Life

Statisticians are busy beavers at this time of the year. Latest contributions from the Metropolitan Life Insurance Company deal with sports and families. The fatalities from accidents sustained in sports and recreation reached the 5,000 mark last year in the United States. Many more were injured seriously.

Half of these deaths occurred among persons swimming or playing in the water, while an additional 1,000 were due to boating mishaps. Dr. Kowalski's advice to sink or swim is apropos of the situation. The remainder of the death toll from sports and recreation was attributed to the use of airplanes for pleasure flying, hunting and participating in various other popular sports. The fatality and injury rates were much lower among the several millions participating in swimming, boating, skiing, hunting and other more popular recreational activities.

Insurance statisticians also informed us that at the time of the 1960 Census the United States had a total of 45.1 million families, a gain of 6.6 million since the count made a decade earlier. All but three states (West Virginia, Mississippi and Arkansas) and the District of Columbia recorded a rise in the number of families between 1950 and 1960. The number of families doubled in Alaska, increased 80 per cent in Florida, 75 per cent in Nevada and 71 per cent in Arizona.

The combined population of the United States and Canada is now 203,600,000. We added 2,950,000 persons to our population in 1961; 4,300,000 were registered live births. Canada added 350,000; their increase was due entirely to the excess of births over deaths.

There were approximately 478,000 births last year and 139,000 deaths. Ontario and Quebec were the fastest growing provinces, accounting for almost two thirds of Canada's total population increase.

The Health Insurance Institute reports that "seven out of every ten employees covered under group health insurance policies issued by insurance companies during 1961 have the right to retain their protection when they retire."

And from the office of the Surgeon General comes the news that 68 per cent of the American youths liable for military duty have met the physical and mental qualifications for the armed forces. This is less than the 76 per cent that qualified during the Korean War, but the mental standards were raised in 1958. Apparently it takes more brains to get into the Armed Forces today. Most of the draftees are a residual group consisting mainly of youths who cannot qualify for regular enlistment or enlistment in the various reserve programs, or who have known disqualifying defects and do not try to enlist.

The Surgeon General's report also points out that it is not justifiable to assume that "all the medically disqualified youths can be rehabilitated, or that their disqualifying conditions could have been prevented through an exercise program." In addition, "certain disqualifying defects such as hernias, punctured eardrums or diabetes could hardly be remedied by such programs. The report concludes that "many physically fit youths are not medically qualified for military service — many nationally known professional athletes provide such examples. On the other hand, many youths who are qualified for military service would rank low on a physical fitness test."

Pharmaceuticals

Roche Laboratories announced recently that their new antitumor agent, **Fluorouracid,** is now available to the medical profession. It was evaluated in over 3,000 patients and exerts a palliative effect in patients with carcinoma of the breast, colon, and rectum. Objective improvement has been noted in 30 per cent of carefully selected patients. But the manufacturers want it known that the drug is highly toxic and offers neither cure nor the promise of prolonging survival time.

Lilly's antitussive product was named **Novrad,** which is Darvon spelled backwards. Ten years ago the company synthesized a number of new compounds, and one of these proved to be the analgesic dextro propoxyphene, known as Darvon. Its mirror image, the levo-isomer, was found to be a cough suppressant. Novrad was the logical name — now that we know the story.



Relieves Anxiety and Anxious Depression

The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom – has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar coated tablets; bottles of 50. Also as MEPROTABS® – 400 mg. unmarked, coated tablets; and in sustained-release capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

CM-6708

Clinically proven in over 750 published studies

1. Acts dependably – without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
3. Does not muddle the mind or affect normal behavior

Book Reviews



CLINICAL OBSTETRICS. Benjamin Tenny, M.D. and Brian Little, M.D. $8.50. Pp. 440. Philadelphia, W. B. Saunders Company, 1961.

Drs. Tenny and Little have set forth clearly their treatment of obstetrical patients in a rather large clinic in the Boston City Hospital. The descriptions reflect their large experience and the careful consideration given the patients by them and their resident staff.

Obviously, as they point out, their technic and suggestions may not fit the problems presented to many men practicing obstetrics in different types of hospitals and with different personnel to render ancillary services. They present clearly their concepts of the problems involved at the beginning of each chapter and then proceed to build, on the basis of their understanding of the pathology and their clinical experiences, a rational defensive treatment.

Various medical complications are considered, such as cardiac lesions, diabetes, different forms of hypertension, eclamptogenic toxemia (preeclampsia and eclampsia) and urinary tract infections. They have made a summary at the end of each chapter.

Blood incompatibilities and their management as it affects both mother and baby are discussed, as well as benign and malignant tumors, antepartum bleeding, abortion and ectopic pregnancy with which they have had a large experience.

They discuss premature rupture of the membranes and chorioammionitis and the associated infection of the fetus, and treatment by induction of labor to avoid septic shock.

Good discussions of cesarean section and of anesthesia and analgesia are presented. However, a professional anesthetist for every case supervising the whole delivery and putting 50 per cent of the cases under surgical anesthesia for delivery has not as yet proved practical on this side of the Adirondacks. The safety of delivery of complicated cases under local anesthesia should be pointed out and spinal and epidural anesthesia reserved for the few cases in which other forms of anesthesia are contraindicated.

I should also hesitate to advise a general practitioner or general surgeon to do a hysterectomy on a woman dying of puerperal sepsis or septic abortion and in septic shock.

The management of abnormal presentations, prolonged labor, and the third stage of labor are well described.

A short discussion of the use of low forceps and episiotomy followed by one on prematurity and its dangers and their management and another on the problems of postpartum care are good.

The book is ended with a discussion on genetics and the possible influence of drugs and radiation of fetal development including antidiuretics, antimicrobial drugs and hypotensive agents, anticoagulants, opiates, hormones, cancer chemotherapy and poisons including carbon monoxide gas.

Naturally, we have found areas of disagreement with certain statements, such as the worthlessness of a uterine pack in helping to control postpartum hemorrhage. (It depends

(continued on page 84)



LISTICA® ALLAYS TENSION/ANXIETY

LISTICA allays tension/anxiety . . . promotes eunoia*. During almost four years of clinical study involving patients with a wide range of conditions, Listica has proven 89% effective. Only 4% of patients have experienced even minor side effects, with the most frequent reaction being mild drowsiness during Listica therapy. Investigators have not reported any toxicity, contraindications, habituation, or cumulative effects or withdrawal symptoms.

LISTICA® is recommended for the relief of anxiety and tension states associated with

- **Alcoholism**
- **Allergy**—Asthma, hayfever, rhinitis, sinusitis, dermatitis
- **Anxiety** and **Neurosis**
- **Bronchial Asthma** and **Bronchitis**
- **Cardiovascular Disease**—Angina, coronary disease, hypertension
- **Dermatology**—Neurodermatitis, herpes zoster, pruritus, urticaria
- **G.I.**—Peptic ulcers, ulcerative colitis, hemorrhoids, regional ileitis
- **Headache** due to tension
- **OB-GYN**—Menopausal, premenstrual tension, obstetrical anxiety
- **Surgery**—Pre-and postoperative anxiety
- **Trauma**

℞ LISTICA®

A NEW TENSITROPIC† **ARMOUR PHARMACEUTICAL COMPANY • Kankakee, Ill.**

Physicians who prefer generic names prescribe "Hydroxyphenamate, Armour"

***eunoia:** A normal mental state (Stedman's Medical Dictionary).

†Favorably alters tension/anxiety.

(continued from page 82)

on by whom and how the uterus is packed). We do not agree that water and sodium retention predispose to pre-eclampsia; we believe the reverse to be true. That a medio-lateral episiotomy properly executed signficantly adds to postpartum hemorrhage and is very painful postpartum or that a midline episiotomy which directs a tear at the sphincter and rectum and results not infrequently in third degree tears contaminating with feces a surgical wound within a few inches of the inside of a freshly delivered puerperal uterus is desirable.

We would also like to have seen more emphasis on the role of the arcuate type of bicornuate uterus in such complications as abortion, dystocia, postpartum hemorrhage, transverse lie, uterine inertia, prolapsed cord, incompetent cervix, retained placenta, premature detachment of the placenta and placenta previa. However, a difference of opinion is what makes a horse race and as the Germans say, "Mann kann nur mit sein eigen kopf denken."

Physically, the book is well set up. The type is clear and easy to read.

There are not many illustrations and these are not too well done. Fig. 32 showing caput on page 320 needs revision.

There is so much sound advice in the book that any man doing considerable obstetrics should have access to it for ready reference.

I congratulate the authors on a good piece of work.

Federick H. Falls, M.D.

CHEMICAL'S IN YOUR FOOD AND IN FARM PRODUCE: THEIR HARMFUL EFFECTS: Franklin Bicknell, M.D., $2.95. Pp. 192. New York, Emerson Books, Inc. 1961.

That this book is intended for laymen is clearly indicated in the author's introduction. That the book is sprinkled with wit and humor is true. Furthermore, there is appended a lengthy list of references. In short, there are good things about it, but in the opinion of this reviewer the book must be regarded as unreliable because of inaccurate, unscientific or vague statements, capable of being misleading and confusing the issues. Examples of such statements follow:

On the first page of chapter I, the author, in speaking of the importance of foods, states: "Our health and the future health of our children is wholly dependent on it." Food is not the only important factor.

On page 63, the author states that "flour is now not only a shoddy food but also a toxic." This blanket condemnation of flour cannot be supported. The author's solution to the problem of better bread is stated at the end of page 67 as follows: "Mothers must make their family's bread, etc., from untreated stone-ground flour from small mills." As much as this reviewer enjoys home-made bread, he would hate to have the job of finding enough small mills and stone grinders to supply the needs of 170 million plus people. Furthermore, evidence that commercial bread is destroying the health of this nation is not available.

At the end of Chapter XII, The Prevention of Congenital Abnormalities, the author concludes: "Parents, wives and husbands, if not for their own sakes then for the sakes of their children — unconceived, conceived, born — should avoid all foods containing alien substances." It is true that the author does develop a case for the avoidance of foods containing harmful ingredients, but his evidence does not support this sweeping all-inclusive conclusion.

In Chapter XIII, the Prevention of Cancer, page 118, the author says: "Of course the cancerous effects of stuffing children and adolescents with coloured jams, coloured sweets, coloured ices, shop cakes made with emusifiers, foreign arsenic-sprayed apples, etc., may not, will not, show themselves for so many years that the parents will fail to realize, even if they are themselves still alive, that they are responsible for the cancers of their children." This statement lacks "the scientific backing" that the author promised to supply.

This book is not recommended.

James R. Wilson, M.D.

"How do you feel lately, Mrs. K?" "Well, Doctor, some customers still
et on my nerves'... but somehow this doesn't bother me
' much... I feel better now and people seem easier to
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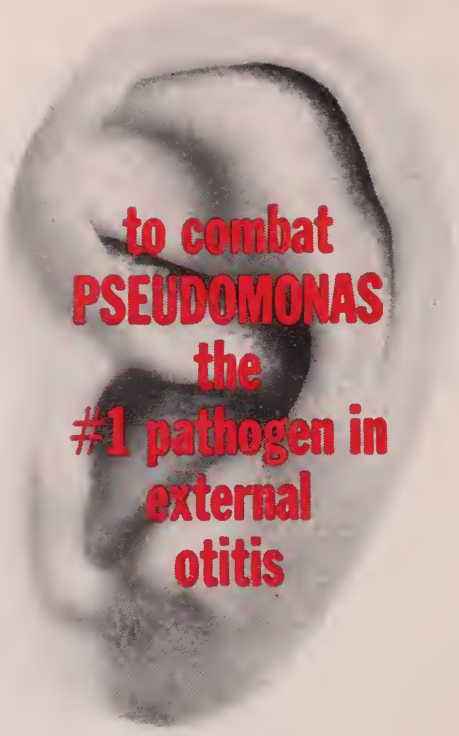
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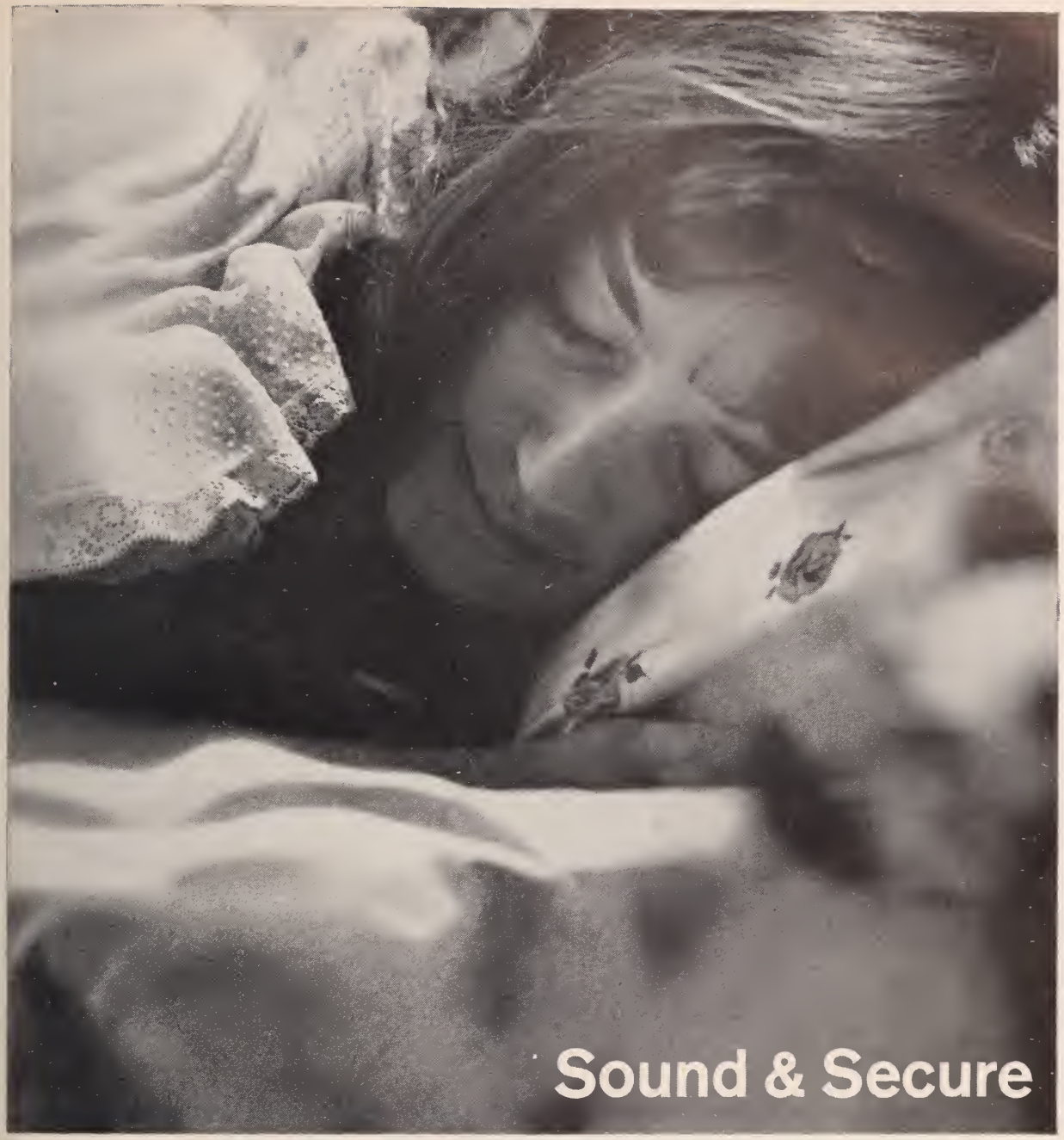
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REFERENCES: **1.** Blumberg, N., Everts, E.A., and Goracci, A.F.: Pennsylvania M.J. *59*:808 (July) 1956. **2.** Matlin, E.: M. Times *84*:68 (Jan.) 1956. **3.** Hodge, J., Sokoloff, M., and Franco, F.: Am. Pract. & Digest Treat. *10*:473 (March) 1959. **4.** Burros, H.M., and Borromeo, V.H.J.: J. Urol. *76*:456 (Oct.) 1956. **5.** Lane, R.A.: New York J. Med. *55*:2343 (Aug. 15) 1955. **6.** Weston, D.T.: Journal-Lancet *76*:7 (Jan.) 1956. 2/3005MB

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NEWS and ANNOUNCEMENTS

Cook County

400 "Kommen" to Bierstube



THIS YEAR'S ANNUAL MEETING began in festive style as 400 ISMS delegates, officers, members and their families were treated to a German-style party complete with the singing of "Schnitzelbank." The party, called "Bierstube" in German, took place in the George Bernard Shaw Room of the Sherman House after the first session of the House of Delegates on Sunday evening, May 13. It was made available for the '62 annual meeting through the courtesy of the United States Brewers' Association as part of its centennial anniversary. Featured were a variety of German foods, including *Wienerschnitzel, Sauerbraten* and *Sauerkraut;* generous quantities of beer, and a small German "oompah" band dressed in authentic Tyrolean costumes.

MD's in News

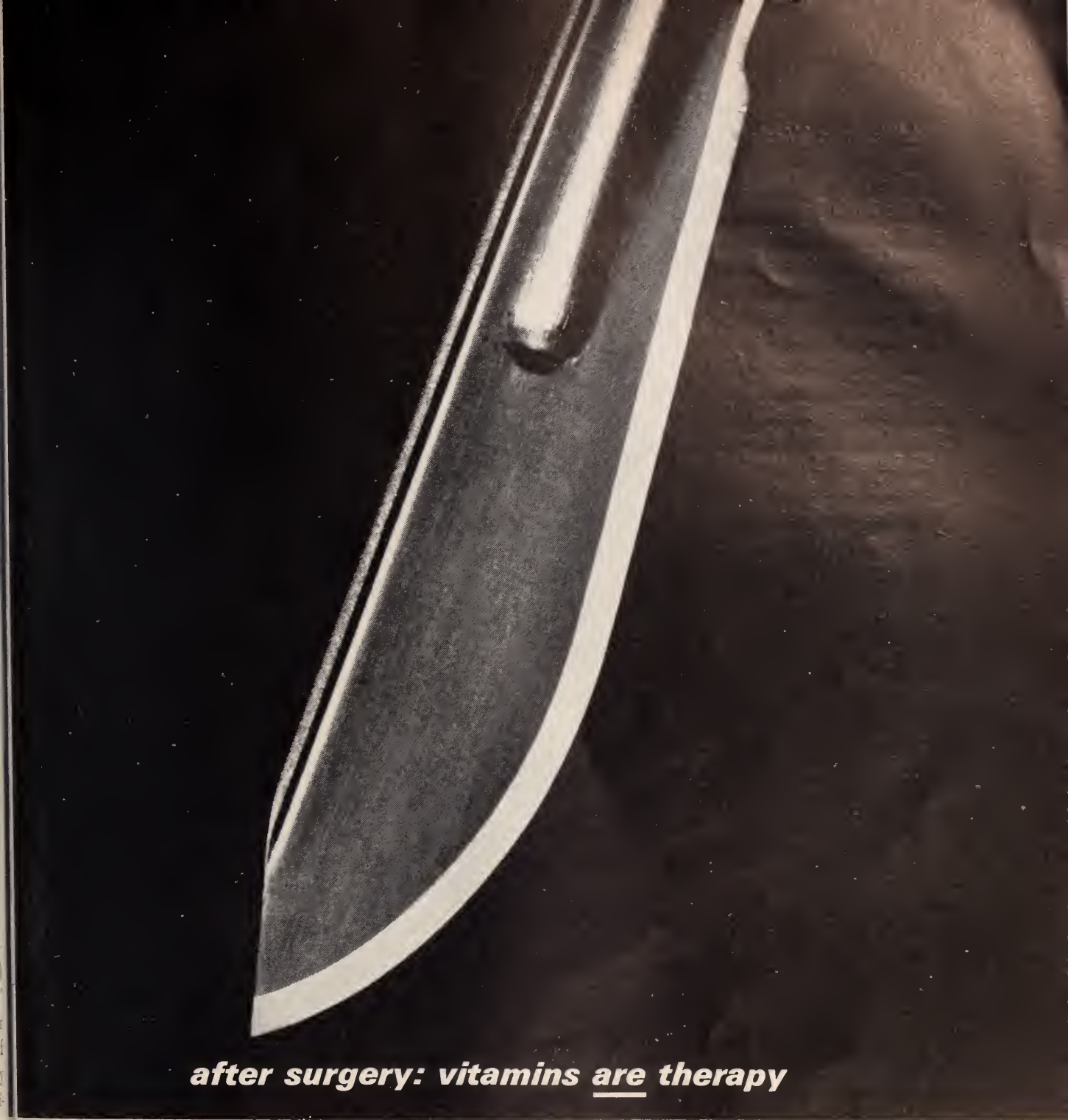
Doctors *Frederick Steigmann, S. Hyman* and *F. Villa* presented a paper on "Mimetic Aspects of Ascites" at the AMA Meeting, Section of Internal Medicine, in Chicago . . . *Dr. Steven G. Economou* has been named editor of a new scientific quarterly, the Presbyterian-St. Luke's Hospital Medical Bulletin. The Bulletin is being sponsored by the hospital, the Research and Education committee of the medical staff, and the Alumni Foundation . . . Recent promotions to the rank of full professors at the Northwestern University Medical School include *Dr. Harold Laufman, Dr. Walter S. Priest* and *Dr. Gene Stollerman . . . Dr. Louis B. Newman,* Chief of the Physical Medicine and Rehabilitation Service at the Veterans Administration Hospital, delivered a series of lectures in Israel during April.

N. U. Integrated Program "Encouraging"

Northwestern University's "integrated program" designed to enable top students to attain their M.D. degrees in six years was termed "exceptionally satisfying and encouraging" by Dr. John A. D. Cooper associate dean of the Medical School as the second group of 25 high school graduates selected was announced. The 21 men and 4 women will follow the pilot 1961 class now completing their first year.

Awards

Dr. Gene H. Stollerman, professor of medicine at Northwestern University Medical School was named "outstanding teacher of the year" by the medical students of the school's senior class . . . *Dr. Charles B. Huggins,* professor of surgery and director of the Ben May Laboratory for Cancer Research at the University of Chicago has been named the 1962 recipient of the Oscar B. Hunter Memorial Award of the American Therapeutic Society . . . *Dr. Morris Fishbein,* editor and medical consultant, received the University of Chicago Alumni Association's highest award, the Alumni Medal for "distinction in one's field of specialization or for service to society or both." . . . The University of Chicago's Howard Taylor Ricketts Memorial Award has been given to *John Franklin Enders,* Nobel Prize-winning virologist, a professor at Harvard University.



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Additions to Wesley Memorial Hospital

Four new and expanded research laboratories of the Ruth Jones Allison Pavilion at the Hospital opened for inspection June 12. Visitors attended an open house and toured the new clinical isotope research laboratory, automatic amino acid analyzer laboratory, animal study room, small animal quarters, a new low temperature laboratory and four new research offices.

The laboratories, built with funds from the U.S. Public Health Service, the Schweppe Foundation and the Wesley Service League, will be used for surgical and steroid hormonal research. Dr. David P. Earle, chairman of the department of research, has been given a grant for a study of the kidney, utilizing tissue culture techniques, to begin October 1.

Grants

Dr. Shun Wu Chu, assistant professor of physical medicine and rehabilitation, at the College of Medicine at the University of Illinois, has received a scholarship from the National Society for Crippled Children and Adults and Alpha Chi Omega, national women's sorority, for training during the coming year in dealing with the cerebral palsied.

Life-time salaries for research have been awarded by the U.S. Public Health Service to two Northwestern University scientists *Dr. E. Albert Zeller*, Abbott professor of biochemistry and *Dr. Fred Grodins*, Abbott professor of physiology.

The American Heart Association has appointed two Connecticut Doctors, *Dr. Leo M. Smith* and *Dr. David Babbott*, to study physician education methods at the University of Illinois College of Medicine.

Elections

Dr. Albert H. Andrews, Jr., attending staff ear and throat specialist at Presbyterian-St. Luke's Hospital, has been elected president of the Chicago Laryngological and Otological Society . . . At the annual meeting of the Chicago Urological Society *Dr. Edwin C. Graf*

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1 "significant hearing improvement" occurred with Arlidin in 32 of 75 patients with recent onset hearing impairment due to labyrinthine artery ischemia.

Rubin, W. and Anderson, J. R.: Angiology 9:256, 1958.

3 Arlidin "appears to be one of the most satisfactory [vasodilators], having the advantages of minimal side effects, being well tolerated and possessing a sustained action" in improving circulation of the inner ear.

Seymour, J. C.: Laryngology & Otology 74:133, 1960.

was elected president . . . *Dr. Louis R. Limarzi,* professor of medicine and chief of the hematology section of the University of Illinois College of Medicine, was recently elected president of the University of Illinois Medical Alumni Association . . . The Chicago Society of Internal Medicine announces its new president: *Dr. Peter J. Talso . . . Dr. Walter C. Bornemeier,* attending surgeon at the Illinois Masonic Hospital, was elected president of the Tuberculosis Institute of Chicago and Cook County . . . *Dr. Benjamin H. Kesert* was elected president of the Chicago Neurological Society recently . . . Among the new officers of the Chicago Surgical Society is *Dr. John Van Prohaska,* president . . . *Dr. Harold Laufman,* professor of surgery, Northwestern University Medical School and editor of "Chicago Medicine" has been elected president of the Chicago Chapter of the American Medical Writers Association.

HOPE Headquarters Opened

A Chicago Committee for project HOPE has been formed and permanent midwest headquarters opened at 740 North Rush St. Project HOPE sponsors the hospital ship S.S. HOPE which is now traveling in South America.

Student Awards

Four students of the Northwestern University Medical School were awarded prizes for their research at a Student Research Symposium on the Chicago campus. Awards were to Jerry A. Schneider of Detroit, Douglas R. Gracey of Dixon, Illinois, Steven L. Merrill of Logan, Utah, and Robert W. Anderson of Kenilworth, Illinois. The Borden Undergraduate Research Award in Medicine of the University of Chicago went to Joseph Baron of Chicago. He is the top-ranking student in the 1962 graduating class and received the research award of $500 for his study of "Ureolytic Activity in Tissues of Conventional and Germ-Free Animals."

Burt D. Brent, a student at the Chicago Medical School, received the $250 second place

(continued on page 92)

vascular insufficiency
of the labyrinth is an important
etiologic factor in sudden
perceptive deafness . . .
"vasodilators [Arlidin] are
of considerable value."

Wilmot, T. J. and Seymour, J. C.:
Lancet 1:1098, 1960.

early cases of sudden
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energetic measures to
retain blood supply to the inner
ear are imperative."

Wilmot, T. J.: J. Laryngology &
Otology 73:466, 1959.

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Clinical benefit in approximately 50% of cases of recent onset hearing loss treated with adequate vasodilator and other supportive therapy is also reported by Sheehy.

Sheehy, J. L.: Laryngoscope 70:885, 1960.

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prize for his exhibit, "Human Brain Dissection in Latex," at the May convention of the Student American Medical Association. The awards are sponsored by Lakeside Laboratories, Inc., Milwaukee.

Foreign Doctors Convene

Sixty foreign doctors now in the United States for postgraduate training convened at the University of Illinois June 24-27 at the Sixth Annual Conference on Medical Education for Foreign Scholars in the Medical Sciences.

Rock Island County

ACS Chapter Holds Annual Meeting

The Rock Island County Chapter of the American Cancer Society held its annual meeting recently featuring a panel presentation by six members of the County Medical Society on "Recent Progress in Cancer."

General

The Department of Registration and Education announces a delay this year in processing license renewals for the medical profession. A shortage of help and the necessity of renewing nursing licenses is causing the delay. Illinois physicians are asked to be patient.

The Illinois Psychiatric Society has elected Dr. Arthur A. Miller president.

Investigations have been completed of all industrial uses of radiation in the state, Dr. Franklin D. Yoder, director of the Illinois Department of Public Health, has reported to the Legislative Commission on Atomic Energy.

Of the 310 industrial installations, 25 per cent were found to have defects upon inspection by the department's radiological experts. Practically all defects have been corrected, with the few remaining in process of correction by industrial users.

The problem of the disposal of natural radioactive wastes is already of sufficient imminence and magnitude to warrant serious consideration of a state-controlled disposal site in Illinois, Dr. Yoder said.

U. C. Announces Psychiatry Fellowships

The University of Chicago announces the establishment of fellowships of six months or one year for non-psychiatric physicians to receive training in psychiatry. The fellowships, which will begin July 1, 1963, will be oriented to increasing clinical confidence, greater capacity for treating emotionally disturbed patients and a practically applicable theoretic background.

Information about these fellowships may be secured from Dr. Robert S. Daniels, University of Chicago Department of Psychiatry, 950 East 59th Street, Chicago 37, Illinois.

National Bilirubin Survey

In order to stimulate interest in the accuracy of bilirubin determinations, the College of American Pathologists' Standards Committee announces a National Bilirubin Survey, open to all physicians and hospitals. Participants will first receive a set of survey samples. Following the survey, a critique of Bilirubin Standards and methods of analyses will be provided. Those wishing to participate in the survey may do so by sending $8 to the Standards Committee, College of American Pathologists, Prudential Plaza, Chicago 1. Applications must be received not later than August 1, 1962.

PG Courses

"*Cardiopulmonary Problems in Children*" will be the theme of the July 23-27 course being offered by the American College of Chest Physicians in cooperation with the American Academy of Pediatrics. It will be held at Chicago's Edgewater Beach Hotel and will have a teaching faculty of 41. Informal discussions will be conducted at the luncheons, with a guest lecturer at each table.

Tuition includes luncheons and will be $75 for members of the College and the Academy and $100 for non-members. Write the College at 112 E. Chestnut St., Chicago 11, for complete details.

September 24 through October 6 are the dates of the University of Illinois College of Medicine's course in *Laryngology and Bronchoesophagology*. It is sponsored by the department of otolaryngology, under the direction of Dr. Paul H. Holinger. Registration is limited to fifteen physicians who will view animal demonstrations and practice in bronchoscopy and esophagoscopy, as well as diagnostic and surgical clinics and didactic lectures.

Interested registrants should write the department at the University, 1853 W. Polk St., Chicago 12.

Crippled Children Clinics

August 1 Alton Rheumatic Fever, Alton Memorial Hospital
August 1 Hinsdale, Hinsdale Sanitarium
August 2 Litchfield, Madison Park School
August 2 Macomb, McDonough District Hospital
August 3 Chicago Heights (Cardiac), St. James Hospital
August 8 Champaign-Urbana, McKinley Hospital
August 9 Springfield (General), St. John's Hospital
August 10 Evanston, St. Francis Hospital
August 14 East St. Louis, St. Mary's Hospital
August 14 Peoria (General), Children's Hospital
August 15 Chicago Heights (General), St. James Hospital
August 16 Elmhurst (Cardiac), Memorial Hospital of DuPage County
August 16 Rockford, Rockford Memorial Hospital
August 21 Belleville, St. Elizabeth's Hospital
August 22 Aurora, Copley Memorial Hospital
August 23 Bloomington (General a.m.), St. Joseph's Hospital
August 28 Effingham (Rheumatic Fever), St. Anthony Memorial Hospital
August 28 Peoria (General), Children's Hospital

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1962 Awards for Studies of Sterility

The American Society for the Study of Sterility is extending three 1962 awards. The Ortho Medal and $1,000 will be given for highly significant work of the past three years. Money is to be used by the recipient for visiting medical and research centers of his interest.

The Rubin Award of a certificate of merit and $250 will go to the author of the paper deemed the most significant contribution of those in *Fertility and Sterility* from the March-April through November-December 1961 issues.

The Carl G. Hartman $500 Grant-In-Aid will be given for research in fertility and sterility or related subjects in 1962.

Applications should be sent to Dr. Michael Newton, chairman of the committee, 2500 N. State St., Jackson 6, Miss. The application must be accompanied by six copies of a brief outline of the research project.

Meetings

August 21-September 6 The Pan American Sanitary Conference in Minneapolis. Top ranking officials from throughout the Western Hemisphere will discuss about 300 public health projects, a program and a budget for the coming year.

September 17-20 The American Hospital Association in Chicago. 60 program sessions and 500 exhibits are planned for McCormick Place for the over 15,000 delegates expected to attend.

September 9-15 The Twelfth International Congress of Dermatology in Washington, D.C. Dermatologic conditions from acne to zoster — and what to do about them — will command the attention of more than 2,000 dermatologists from all over the world. The core of the program will be 15 symposia, designed to apply advances in basic sciences to clinical dermatology.

The Society for Clinical and Experimental Hypnosis plans its annual meeting for the week of August 6 through 10 in Portland, Ore. A workshop in hypnosis and a meeting of the International Society for Clinical and Experimental Hypnosis will be included in addition to the scientific meeting.

More information may be obtained from Dr. William Cane, 301 A Ave., Lake Oswego, Ore.

State Medical Meetings

August 23-25 West Virginia Medical Association Meeting will be held in White Sulphur Springs.

September 11-14 Utah State Medical Association convenes for its 67th Annual Meeting in Salt Lake City.

Available Literature

Up-to-date information of camping programs and facilities for the handicapped is available in "Directory of Camps for the Handicapped" published by the National Society and available for 50 cents from local Easter seal societies or from the National Society for Crippled Children and Adults, 2023 West Ogden Avenue, Chicago 12, Illinois. The directory lists and describes 250 resident camps and more than 100 day camp programs.

Reprinted copies of a *Classification of Headache*, prepared by a committee appointed by the National Institute of Neurological Diseases and Blindness are available to interested groups or individuals without charge from the Information Office, NINDB Bethesda 14, Maryland.

Symposia on two of the newer areas in heart disease study, entitled "Angiotensin" and "Use of Indicator-Dilution Technics in the Study of the Circulation," have been reprinted in book form by the American Heart Association. Copies of the book are available at $2.50 each from the Chicago Heart Association, 22 West Madison, Chicago 2, Illinois.

A booklet, "Cerebral Palsy — Dr. Meyer Perlstein Answers Questions Parents Ask," has been brought out by the National Society for Crippled Children and Adults. The questions cover the nature of cerebral palsy, relationships between the handicapped child and his parents, the inner life of the cerebral palsied, and the

Cook County Graduate School of Medicine Continuing Education Courses

STARTING DATES-FALL, 1962

Surgical Technic, Two Weeks, September 10, November 5
Surgery of Colon & Rectum, One Week, September 17
Urology, Two Weeks, October 29
Vaginal Approach to Pelvic Surgery, One Week, Sept. 10
Obstetrics, General & Surgical, Two Weeks, October 8
Gynecology, Office & Operative, Two Weeks, September 17
Proctoscopy & Sigmoidoscopy, One Week, September 10
General Practice Review, One Week, October 8
Gallbladder Surgery, 3 Days, October 8
Surgery of Hernia, 3 Days, October 11
Basic Electrocardiography, One Week, October 1
Board Review, Internal Medicine—Part I, September 10
Advances in Medicine, One Week, October 15
Advances in Surgery, One Week, December 10
Blood Vessel Surgery, One Week, October 22
Board of Surgery Review, Part I, Two Weeks, November 5
Board of Surgery Review—Part II, Two Weeks, November 26
Fractures & Traumatic Surgery, Two Weeks, October 1

Information concerning numerous other continuation courses available upon request.

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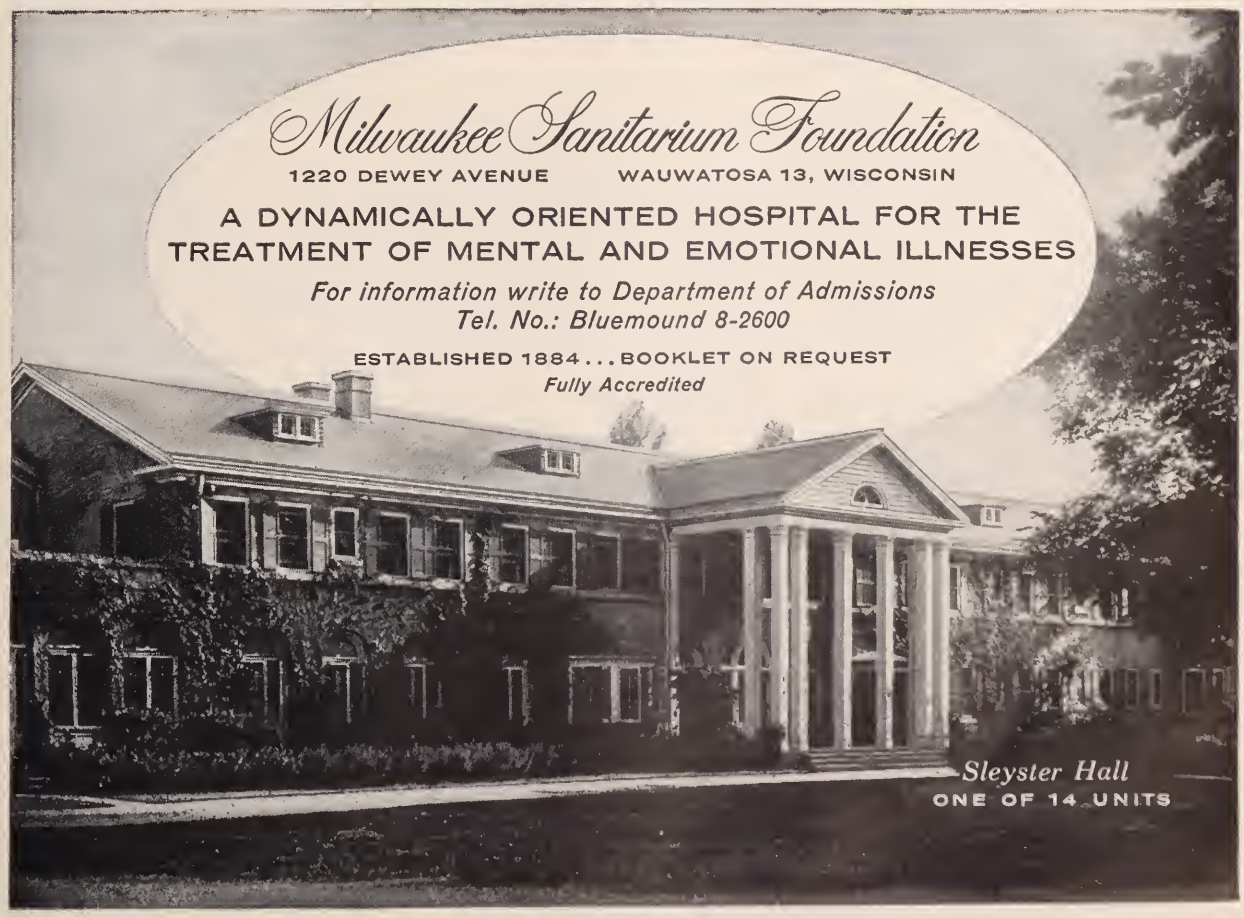
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Copies are 25 cents each, and requests should be addressed to the society's Publications Section, 2023 W. Ogden Ave., Chicago 12.

Aid to Reviewing the Literature

The 1961 "Bibliography of Medical Review," prepared by the National Library of Medicine, will be a cumulative issue, containing all material published in BMR since the beginning of the series in 1955, in addition to new material for 1960. Copies became available in late 1961.

Medical Film File Moves

The medical motion picture archives of the National Library of Medicine, Washington, D. C., have been transferred to the Audiovisual Facility of the U. S. Public Health Service's Communicable Disease Center in Atlanta. This involves the entire reference and historical collection of medical films and associated files.

Peacock Camp for Crippled Children

Physicians treating handicapped children who might benefit from a summer camp will be interested to know of the Peacock Camp for Crippled Children at Lake Villa, in Lake County. Peacock Camp is a not-for-profit organization where each camper pays according to his means. Organized 26 years ago, it is supported by a Woman's Board and donations from Chicagoans and others in the vicinity.

Handicaps represented at the camp sessions include rheumatoid arthritis, post polio, cerebral palsy, multiple sclerosis, spinal bifida, spastic paraplegia, cystic fibrosis, muscular dystrophy and blindness.

The camp, on the shores of Crooked Lake, has no stairs to hinder walking in braces or on crutches. The doors are extra-wide for wheel chairs, and each room has an inside and outside exit. The heated swimming pool is equipped with a hydrolic lift, and expert swimmers watch the campers.

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are on duty at all times, with medical and hospital facilities provided.

Campers participate in overnight trips, cookouts, games and boating. There is a craft shop for manual arts and a new pavillion for rainy-day activities and ping-pong and shuffleboard tournaments. Evening programs are given by local entertainers.

This year there was a June session for both boys and girls between eight and eleven. Normally the camp accepts children from 12 through high school. The boy's session is July 9-31; the girl's session August 3-24.

With the exception of a few openings for boys the camp is filled for this year. However, applications can be made for next year by contacting the camp at Lake Villa.

Merger for CARE and MEDICO

Two international aid agencies — CARE, which sends food and self-help supplies abroad, and MEDICO, which sends teams of American doctors, nurses, and technicians overseas, joined forces in February. The merger was intended to decrease the multiplicity of fund appeals and to reduce administrative costs by eliminating duplicate facilities.

MEDICO will operate as a service of CARE, with the latter assuming administrative responsibilities and providing material support.

Contributions on hand at MEDICO, and future donations so designated, will be used solely for its program. CARE will maintain separate records for that purpose, although general funds and procedures will be consolidated.

Motion Pictures

The 16 mm. color and sound film "Eaton Agent Pneumonia" reenacts the first study in isolating and defining the causative agent of the disease made by Dr. Monroe Eaton, and the later confirmation of the agent with the fluorescent antibody technique. Further studies are depicted among Marine recruits at Parris Island, N. C., and with prison volunteers. The Eaton agent was induced, and then effectively treated with the drug, demethylchlortetracycline.

The Communicable Disease Center, Atlanta, produced the 17-minute movie for the National Institute of Allergy and Infectious Diseases, National Institutes of Health, in cooperation with the Bureau of Medicine and Surgery of the Department of the Navy.

The movie is on loan from the Center's audiovisual department, Atlanta 22, or may be purchased from United World Films, 1445 Park Ave., New York 29, for $130.76.

ISMS

According to the ISMS Constitution . . .

Chapter VIII. Dues and Expenses. Annual Dues. Funds shall be raised by an equal per capita assessment on each component society. The amount of the dues shall be fixed by the House of Delegates and shall include the dues and or assessments approved by the House of Delegates of the American Medical Association.

The annual dues shall include the annual subscription to the Illinois Medical Journal which shall be at least fifty per cent of the regular subscription price of the Journal.

Deaths

Marcus R. Caro*, Winnetka, a graduate of the University of Illinois College of Medicine in 1928, died May 17, aged 59. He was certified in dermatology and syphilology in 1938 and was head of the department of dermatology of the University of Illinois from 1955 to 1958. In 1945 he was president of the Chicago Dermatological Society and was a life member of the medical staff of Michael Reese Hospital. He was a member of the American Board of Dermatology since 1951 and served as president in 1959. His memberships included the American Dermatological Association, the American Academy of Dermatology and the Mississippi Valley Dermatology Society.

David Davis, Chicago, a graduate of Friedrich-Wilhelm University Medical School, Berlin, Germany in 1936, died April 8, aged 57. He was head of Chicago's Southwestern Medical Center and served as a Cook County Coroner's physician from 1950-1955 and as a Chicago police surgeon for 15 years.

Harry Greengard*, Chicago, a graduate of Northwestern University Medical School in 1938, died February 19, aged 58.

James J. Heydanek, retired, Chicago, a graduate of the Chicago College of Medicine and Surgery in 1913, died March 24, age 76. During the 1930's and 1940's he was a department head at St. Anthony Hospital.

Henry J. Hillebrand*, retired, Chicago, a graduate of the University of Illinois College of Medicine in 1899, died April 1, aged 85. He held membership in the 50-Year Club of the ISMS and was also an emeritus member. He was a former health officer of the Chicago Board of Health.

Herbert Rattner*, Chicago, a graduate of Northwestern University Medical School in 1926, died April 4, aged 62. Certified in dermatology and syphilology in 1937, he was chairman of the department of dermatology at Northwestern University, Michael Reese, Cook County and Passavant hospitals. He was an honorary member of dermatologic societies in England, Israel, Austria, Venezuela, and Argentina and was editor of the *Archives of Dermatology* since 1952. A past president of the Chicago Dermatlogical society, he was a member of the American Academy of Dermatology, the Society of Investigative Dermatology, the American Geriatric Society and the New York Academy of Sciences.

Frank Miller Reed*, Elmhurst, a graduate of Northwestern University Medical School in 1947, died May 16, age 41.

Renato Rosini*, retired, Chicago Heights, a graduate of the University of Naples, Italy School of Medicine in 1920, died May 17, aged 70. He was a staff member of St. James Hospital, Chicago Heights and during World War I he served with the Italian Army Medical Corps.

Robert Emanuel Stern, retired, Chicago, a graduate of Ludwig-Maximilian University Medical School, Munich, Germany in 1906, died April 1, aged 79. He was a gynecologist in Germany for 30 years before coming to Chicago in 1940, where he practiced until his 1961 retirement.

Francis D. Wolfe*, Chicago, a graduate of Northwestern University Medical School in 1927, died April 1, aged 61. Certified in proctology in 1950 and senior surgeon at Wesley Memorial Hospital, he also was associate proctologist at Northwestern University Medical School's department of surgery. He had fellowships in the American College of Surgeons, International College of Surgeons and American Proctologic Society.

Joel D. Worrell*, retired, Monmouth, a graduate of Bennet Medical College in 1914, died April 13, aged 84. Until his 1953 retirement he had practiced in Monmouth for 36 years. He was an emeritus member of the ISMS, and during World War I was a medical examiner.

Erwin Paul Zeisler*, retired, Winnetka, a graduate of Northwestern University Medical School in 1912, died April 1, aged 73. Certified in dermatology and syphilology in 1934, before his retirement 10 years ago he was attending dermatologist at Cook County Hospital and assistant professor at Northwestern University School of Medicine.

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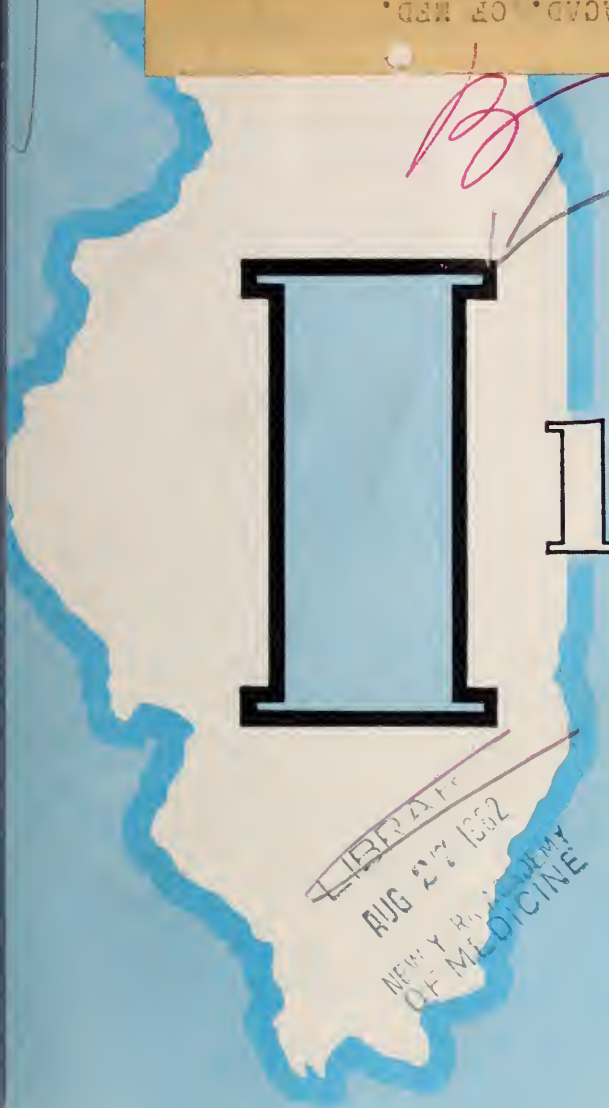
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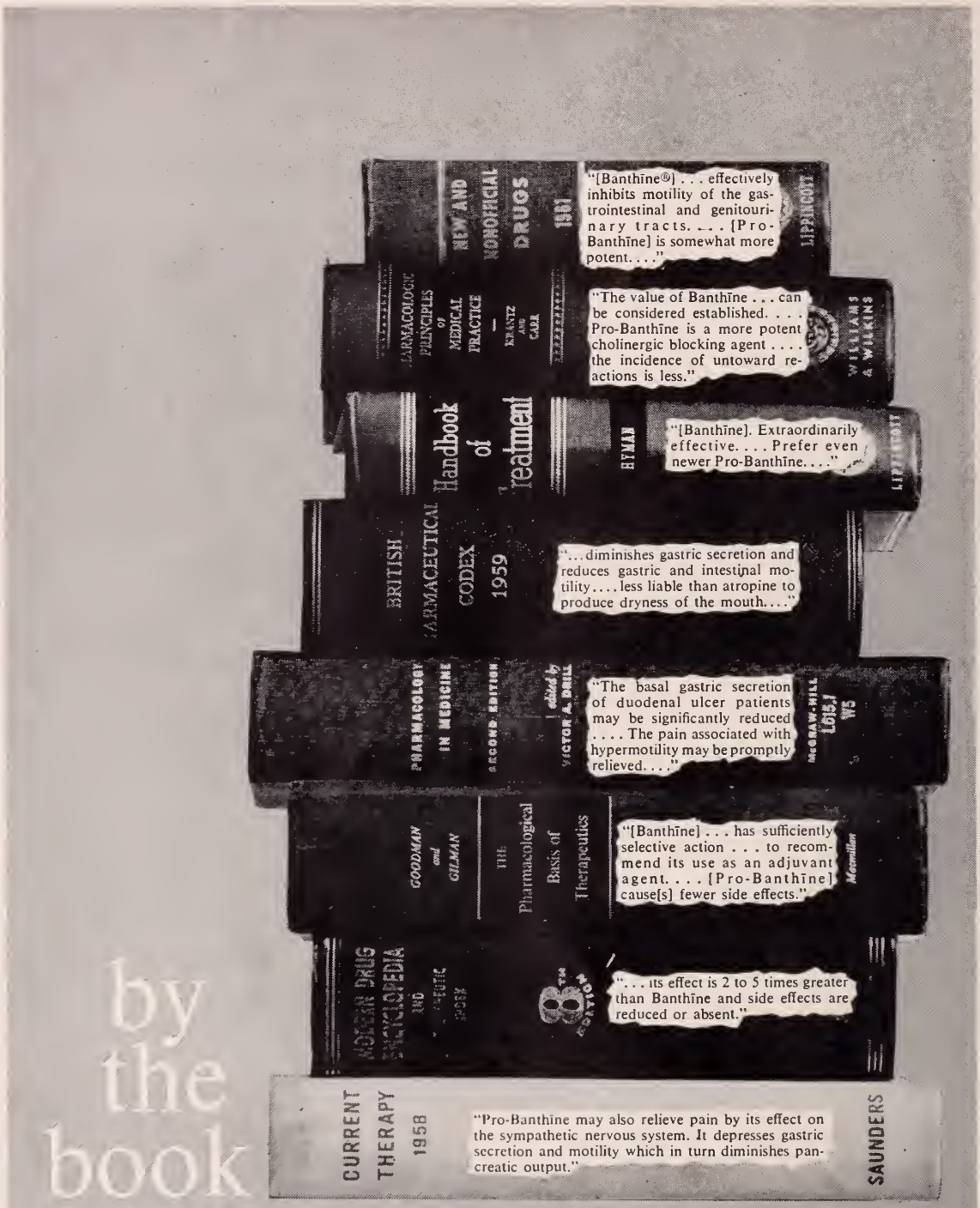
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Abstract of Board Actions

Meeting of July 29, 1962

MATERNAL WELFARE COMMITTEE TO STUDY CONGENITAL ANOMALIES

In coperation with the Illinois Department of Public Health and the Chicago Board of Health, the Maternal Welfare Committee is undertaking a detailed study of congenital anomalies in Illinois over the past year, including those caused by the drug Thalidomide. In this study the Committee is enlisting the aid of the county society Maternal Welfare Committees. Committee Chairman Dr. W. C. Scrivener is serving as Project Director for the Thalidomide phase of the study.

MILITARY DEPENDENTS MEDICAL CARE PROGRAM CONTRACT TO BE RENEGOTIATED

It was agreed that renewal of the Medicare contract providing care for the military by "home town physicians" be renegotiated. The meeting will be held in Washington August 8, 1962. As fiscal administrator in Illinois, Blue Shield will send representatives. They have suggested that payment for drugs be one item of renegotiation. To resolve present difficulties, it is suggested that a flat fee representing the cost of injectibles by category be established to replace the "actual cost" basis for payment.

Also, two types of consultations are authorized at different rates, code 0026 and 0027. The former concerns consultation not requiring a complete medical history and physical examination and not including the detailed study contemplated by code 0027, which requires a complete medical history and physical examination. Administratively, it is difficult to establish which of these services has been performed from the customary report initially submitted. Therefore, renegotiations are to include the proposal that 0026 be redesignated as involving a single system, and 0027 as involving a complete neurologic review or requiring a complete physical examination.

It was agreed that the physicians designated to represent ISMS to renegotiate the Medicare contract be asked to use their best judgment in the matter of adjusting fees in any specialty under consideration.

REPORT OF ISMS ADVISORY COMMITTEE TO IPAC

To assure a more even distribution of work load among physicians participating in the care of IPAC patients, it was recommended that 1) a roster of all physicians participating in the program be made available to physician participants and IPAC Staff in counties where needed, and 2) county public aid departments should issue identification cards to assure physicians of the recipient's eligibility for services.

EXTENSION ASKED ON FDA DIETARY FOODS HEARING

In the interest of the public, the Committee on Nutrition will request that FDA extend by at least 6 months its current deadline of August 20, 1962, for public consideration of their proposed regulations concerning dietary foods. This time extension would permit exploration of other means of controlling abuses of existing regulations.

SELF-ACCREDITATION OF NURSING HOMES

A self-accreditation program for nursing homes has been developed under the auspices of the American Nursing Home Association. Concurrently, an accreditation program is under consideration by the Joint Commission on Accreditation of Hospitals, which the Nursing Home group is willing to support. A decision on the Joint Commission program is anticipated soon. If inaugurated, the ANHA program would serve as a listing program similar to AHA listing for hospitals. ANHA is vigorously opposed to AHA listing or an affiliation agreement with a hospital as required under the Joint Commission program.

The Illinois Nursing Home Association is planning to implement the program in Illinois on the premise that something needs to be done now. The Illinois Hospital Association has formally declined participation on the grounds that the Joint Commission program will be in operation by January, 1963. INHA has been advised of ISMS support to upgrade nursing home care but a desire to refrain from active participation pending decisions by AMA with respect to the national program.

BOARD MEETING AND COMMITTEE WORKSHOPS SCHEDULED

The next meeting of the Board will be held in conjunction with a workshop with Committee Chairmen at the Ambassador West Hotel September 15-16, 1962. On the 15th a meeting of the Finance Committee and Executive Committee will be held at 4 p.m. and a dinner meeting of the Board at 6 p.m. A general session will open the committee workshops at 9 a.m. on the 16th, followed by five group sessions each moderated by a member of the Board of Trustees. Following luncheon, there will be a closing session and critique.

ISMS COOPERATES WITH ATTORNEY GENERAL

It was agreed that the Chairman of the Board appoint a committee to cooperate with the attorney general in his request to receive from the medical profession information on quacks and quackery.

REQUEST TO REPORT PHYSICAL DEFECTS OF DRIVERS CONSIDERED

A request from the Department of Health relative to a bill requiring physicians to report physical defects affecting the ability to drive a car is being considered by the Committee on Public Service. A report will be made to the Board of Trustees following the study.

COMMUNITY HEALTH WEEK

Dates for Community Health Week in Illinois have been set for the week of October 21. To assist the county medical societies and the Board in participation and in answering inquiries, a list of suggested activities will be prepared and distributed.

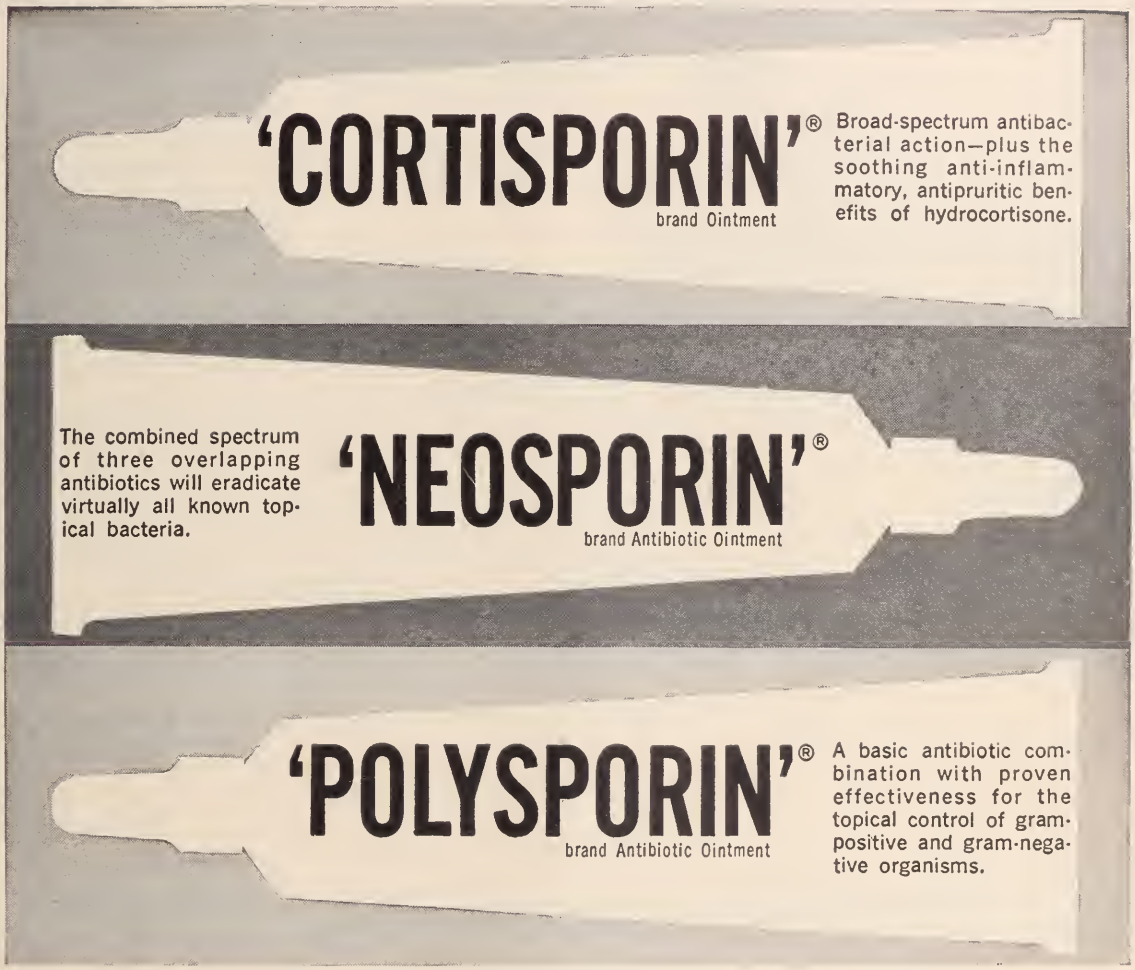
HEALTH PLAN CONSULTANTS SERVICE INVESTIGATED BY CMS

The activities of the Health Plan Consultants Service, Inc., of Chicago, which apparently includes entering into a written agreement with some Chicago physicians to supply medical services to the Upholsterers' International Union under their health and welfare plan, is under investigation by the Chicago Medical Society. A more detailed report of this activity is being prepared for presentation to the Board of CMS. No action by ISMS is recommended at this time.

FINANCE COMMITTEE REPORT

Authorization to purchase stock was transmitted to the Continental National Bank trust department. Twenty thousand dollars now in a savings account is to be held for such investment as the bank recommends to the Finance Committee.

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*Schwartz, I. R.:
Current Therap. Res. 3:29, Feb., 1961.

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AS I SEE IT FROM '360'

By Robert L. Richards
Executive Administrator

Congressional Vote Against King-Anderson: A Gift of Time

The Noteworthy Decision by Congress on July 17 to reject King-Anderson represents a giant step forward in our campaign to preserve free enterprise in American medicine. Much credit for this favorable decision rightfully goes to the American Medical Association and its component societies. Their concerted, cooperative effort in informing the public undoubtedly did much to help influence the Congressional decision.

While we are gratified by this decision, we cannot relax our efforts. The administration will re-introduce King-Anderson next January. Meanwhile, organized medicine at the state and county levels has been given the precious gift of time to prove that Kerr-Mills, properly implemented, meets the need of health care for the aged in a manner confluent with the traditions of American medicine.

In Illinois, Kerr-Mills implementation is part of a 12-point program for medical care of the aged, adopted last December by the Board of Trustees. In summary, these 12 points state:

1. Chronologic age should not be the sole criteria for retirement.

2. The cost of personal health care is primarily the responsibility of the individual and his family. When these sources are not adequate, he should look first to the local community for assistance before resorting to governmental assistance.

3. Voluntary prepayment plans and health insurance can and should provide the basis for meeting the health care cost of most people.

4. The physicians of Illinois will continue, as they have in the past, to provide medical care to the aged, at fees they can afford or without charge, as the resources of these patients indicate.

5. The Kerr-Mills Bill, properly implemented, will fulfill all additional governmental responsibility by providing medical care for the medically indigent aged.

6. Expansion of skilled personnel training programs in the health field at all levels is needed to provide adequate care for the growing number of aged.

7. Improvement of medical and related facilities and services is needed, particularly in the fields of long-term and chronic care, rehabilitation, and neuropsychiatric care.

8. Health maintenance programs should be supported, with special emphasis on proper diet, exercise, and living habits in earlier years to assure better health in later years.

9. Efforts should continue to stimulate physicians and allied groups to make full use of restorative and rehabilitation services, so that older patients may return to some degree of independent living as quickly as possible.

10. Emphasis should be given to programs which integrate the older person with the community as a whole, such as found in churches, senior achievement groups, "Golden Age" clubs, and day centers.

11. Medicine will continue to support, encourage, and participate in research on both the medical and socioeconomic aspects of aging.

12. All county societies are urged to increase their activity forming special committees to take local leadership in the development of specific programs to improve health care of the aged.

It should be remembered that these policies are not a defensive measure against the current threat of socialized medicine, but have been developed over a period of years as a realistic, fair system of helping the medically indigent aged. As these 12 points are our plan of action, may the recent victory in Congress be an added incentive to carry them out.

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An important announcement to physicians who prescribe corticosteroids

Organon's new technical process now makes one of the newer, most highly potent and well tolerated corticosteroids available at greatly reduced cost to your patients with allergic, arthritic or other inflammatory conditions.

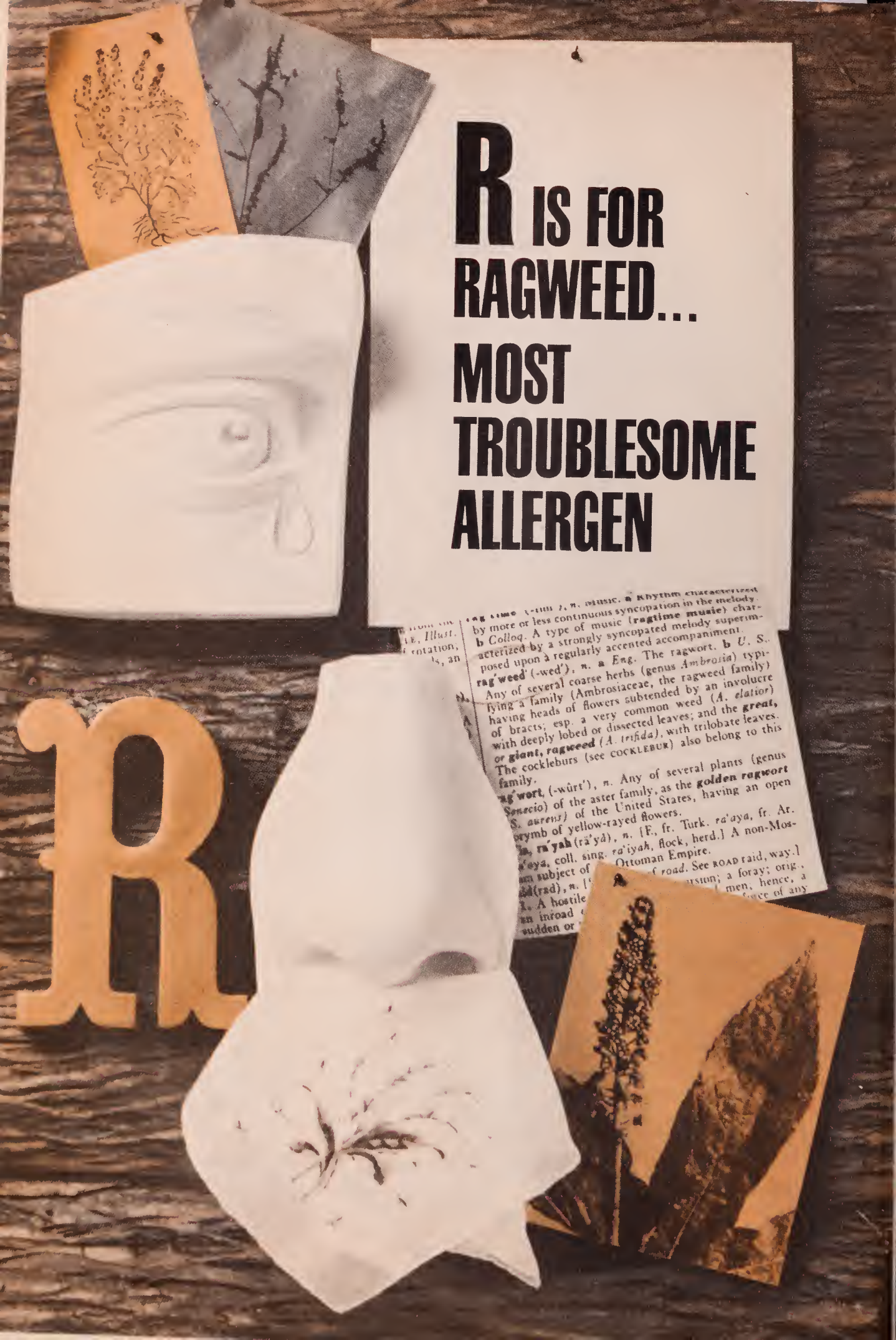
This new product is being marketed under the trade name of HEXADROL, brand of dexamethasone 'Organon'. HEXADROL is now being offered to your pharmacist at a price which should make it available to your patients at a cost well within the price range of older generically prescribed corticosteroids. It is supplied as 0.75 mg. white scored tablets, in bottles of 100.

If you have been prescribing the older corticosteroids— such as prednisone, prednisolone, hydrocortisone or cortisone, and have hesitated to prescribe the newer corticosteroids because of economic consideration for your patients, you can now secure all of the clinical advantages of dexamethasone at approximately the same prescription expense. Mg. for mg., HEXADROL is approximately 6 times more potent than triamcinolone or methylprednisolone ... 8 times more potent than prednisone or prednisolone ... 28 times more potent than hydrocortisone ... and 35 times more potent than cortisone.

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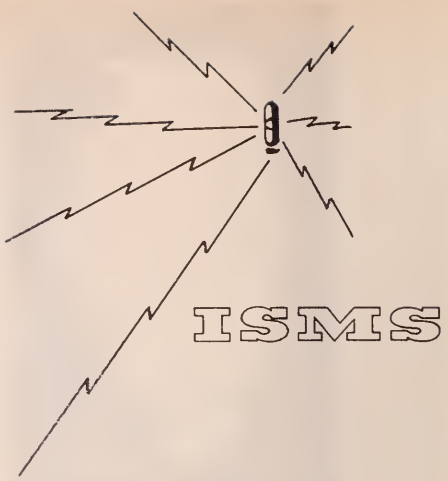
Antispasmodic action: Because of its inherent atropine-like properties, BENADRYL affords relief of bronchial spasm.

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Announcements

Symposium on Nutrition and Food Technology

DATE: September 26, 1962

PLACE: Lake Shore Club of Chicago, 850 North Lake Shore Drive, Chicago

SPONSORED BY: Chicago Section, Institute of Food Technology, Chicago Nutrition Association Committee on Nutrition, ISMS.

9:00 - 9:30 a.m.	REGISTRATION
9:30 - 10:00	Philip L. White, Sc.D. "Nutrition, Technology and Health . . . Food Ties the Triad"
10:00 - 10:15	Paul Dailey, M.D. "An M.D. Looks at Today's Foods"
10:15 - 11:00	Margaret A. Ohlson, Ph.D. "Dietary Patterns and Effect on Nutrient Intake"
11:00 - 11:30	Robert Lawson, M.D. "Metabolic Fault Diseases and the Dietary"
12:00 noon - 2:00 p.m.	LUNCHEON Luncheon Speaker — T. R. Van Dellen, M.D. "What People Don't Know Does Hurt Them"
2:00 - 2:45	Nevin S. Scrimshaw, M.D., Ph.D. "Interrelationships Between Nutritional Status and Disease Resistance"
2:45 - 3:30	Bruce H. Morgan, Ph.D. "Food Technology and Nutrition Today"
3:30 - 3:45	COFFEE BREAK
3:45 - 4:30	F. P. Mehrlich, Ph.D. "New Horizons in Nutrition Through Food Technology"
5:00 - 5:30	FIRESIDE CONFERENCES
6:30 - 7:45	DINNER
8:00 - 8:45	Daniel F. Gerber "The Corporate View of Nutrition"

Fellowships

The American College of Postgraduate Studies, chartered March 30, 1961, has officially opened its roster to applicants for Founder Fellowship. The main objective of the College is to unite in one postgraduate teaching association those who are engaged in the practice of medicine and surgery. Doctors who are interested in affiliating with the college, or obtaining further information, may communicate with the Executive Officer, Alfred J. Cantor, M.D., 147-41 Sanford Avenue, Flushing, Long Island, New York.

The Chicago and Illinois Heart Associations have announced the availability of research fellowships for 1963-64.

The Post-Doctoral Fellowships are open to individuals with one year or less of post-doctoral research training and experience for



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research in the cardiovascular field. These fellowships will be awarded for one to two years. Applications must be received on or before October 15, 1963.

Further information and application forms are available from the Research Department, Chicago and Illinois Heart Association, 22 West Madison Street, Chicago 2, Illinois. . . . Financial 6-4675.

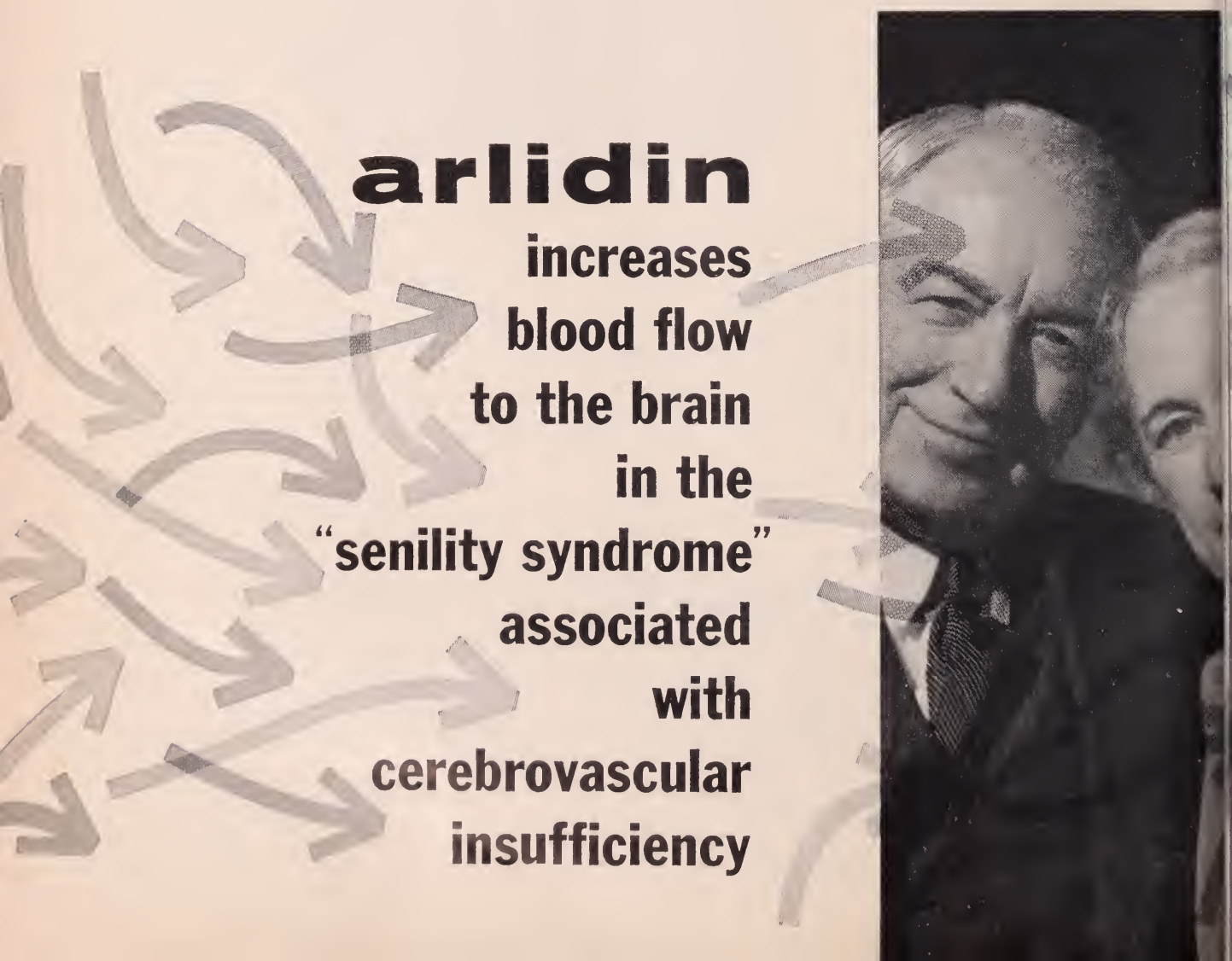
PG Courses

The Medical Staff of Silver Cross Hospital in Joliet has planned a review course in "Hematology" to be held Wednesday a.m., September 19. All physicians are welcome and the registration fee is $5.00. Anemia, Isotopes in its diagnosis and Leukemia will be the topics of the 3 lectures.

The Annual Course in Postgraduate Gastroenterology of the American College of Gastroenterology will be given at the Morrison Hotel in Chicago, Nov. 1-3. The faculty for the Course will be drawn from the Medical Schools in the Chicago area. Further information may be obtained from the American College of Gastroenterology, 33 West 60th Street, New York 23, New York.

Physicians in Seattle for the Fair will have the opportunity to take advantage of several post graduate cources being offered at the University of Washington School of Medicine. Topics of the courses include: "Surgery and Early Detection of Disease; Hand Injuries; and Management of Water, Sodium, Potassium Imbalances."

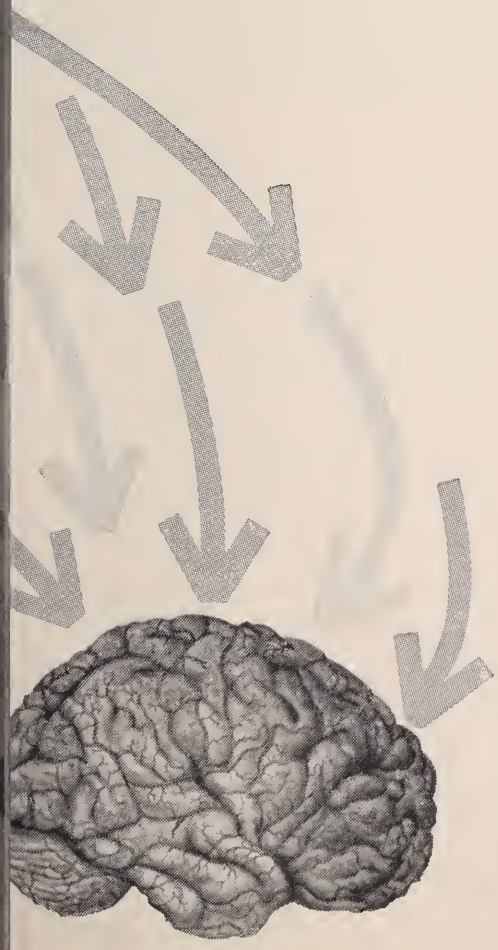
The New York University Post-Graduate Medical School is offering two courses for the fall session. "Surgery of the Cornea" will be offered from September 10 through 14, 1962. Given under the direction of Dr. Ramon Castroviejo, the tuition for the course will be $250. All practical aspects of corneal surgery, discussion of clinical material and patient treatment. "Gynecological Endocrinology" will be



offered from October 1-5. Practical, didactic, and clinical presentations with emphasis on the therapeutic management of endocrine disorders in the female, including a discussion of the diagnosis and management of intersex, will be offered. Tuition will be $140 and the course will be under the direction of Dr. Herbert S. Kupperman. Applications and further information may be obtained by writing Office of the Associate Dean, New York University Post-Graduate Medical School, 550 First Avenue, New York 16, New York.

The Cook County Graduate School of Medicine is offering a one week course in Surgery of the Hand, scheduled to start September 24, 1962. Dr. Adrian E. Flatt of the University of Iowa will be the Special Guest Lecturer. Registration will be limited, and further information may be obtained by writing the Registrar, Cook County Graduate School of Medicine, 707 South Wood Street, Chicago 12, Illinois.

Conferences in pediatrics and urology to be held in September will open the 1962-63 series of 18 Medical Postgraduate Conferences at the State University of Iowa College of Medicine. The program for the Pediatrics Conference on September 19-20 will focus on malignant disease in children; the problems of mental retardation, including management; chronic disease in children; ulcerative colitis; and a group of interesting pediatric cases. Among the speakers will be Dr. Donald Pinkel, Medical Director of St. Jude Hospital at the University of Tennessee, and Dr. Milton Rapoport, Professor of Pediatrics at the Childrens Hospital of Philadelphia. The Urology Conference on September 28-29 will deal with problems of pediatric urology. One area of discussion will be infections of the urinary tract in children and management of the infections. Physicians who desire programs and registration materials should write to John A. Gius, M.D., Director of Postgraduate Medical Studies, Office of the Dean, College of Medicine, Iowa City, Iowa.



Inadequate cerebral blood flow—often due to cerebral arteriosclerosis—may result in the "senility syndrome" with its pattern of mental confusion, memory lapses, depression, fatigue, apathy and behavior problems.[1-3]

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references: 1. Madow, L.: Penn. M. J. 62:861, June 1959. 2. Stieglitz, E. J.: Geriatric Medicine, ed. 2, Philadelphia, Saunders, 1949 p. 274. 3. Winsor, T., et al.: Amer. J. Med. Sciences 239:594, May 1960. 4. Eisenberg, S.: ibid, July 1960.

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September 5 Hinsdale, Hinsdale Sanitarium
September 5 Rock Island (Cerebral Palsy), Foss Home, 3808 8th Avenue
September 6 Effingham (General), St. Anthony Memorial Hospital
September 6 Peoria (Cerebral Palsy), Roosevelt School
September 6 Sterling, Community General Hospital
September 7 Chicago Heights (Cardiac), St. James Hospital
September 11 East St. Louis, Christian Welfare Hospital
September 11 Peoria (General), Children's Hospital
September 12 Champaign-Urbana, McKinley Hospital
September 12 Joliet, Silver Cross Hospital
September 13 Anna, County District Hospital
September 13 Springfield (General), St. John's Hospital
September 18 Alton (General), Alton Memorial Hospital
September 19 Evergreen Park, Little Company of Mary Hospital
September 19 Jacksonville, Our Saviour's Hospital
September 20 Decatur, Decatur & Macon County Hospital
September 20 Elmhurst (Cardiac), Memorial Hospital of DuPage County
September 20 Rockford, Rockford Memorial Hospital
September 25 Peoria (General), Children's Hospital
September 26 Centralia, St. Mary's Hospital
September 26 Elgin, Sherman Hospital
September 26 Springfield (Cerebral Palsy—p.m.), Memorial Hospital
September 27 Effingham (Rheumatic Fever), St. Anthony Memorial Hospital
September 27 Sparta, Sparta Community Hospital

Meetings

The American Medical Association will hold its first National Congress on Mental Illness and Health in Chicago, October 4-6. The purpose of the meeting, held with the cooperation of the American Psychiatric Association and the support of the National Association for Mental Health is to implement the AMA's new mental health program.

The International College of Surgeons will hold its Biennial Congress at the Waldorf-Astoria, New York, September 9-13. A. Mario Dogliotti, M.D., Torino, Italy, President of the College, will preside at the meeting which will attract 3,500 surgeons from all over the world.

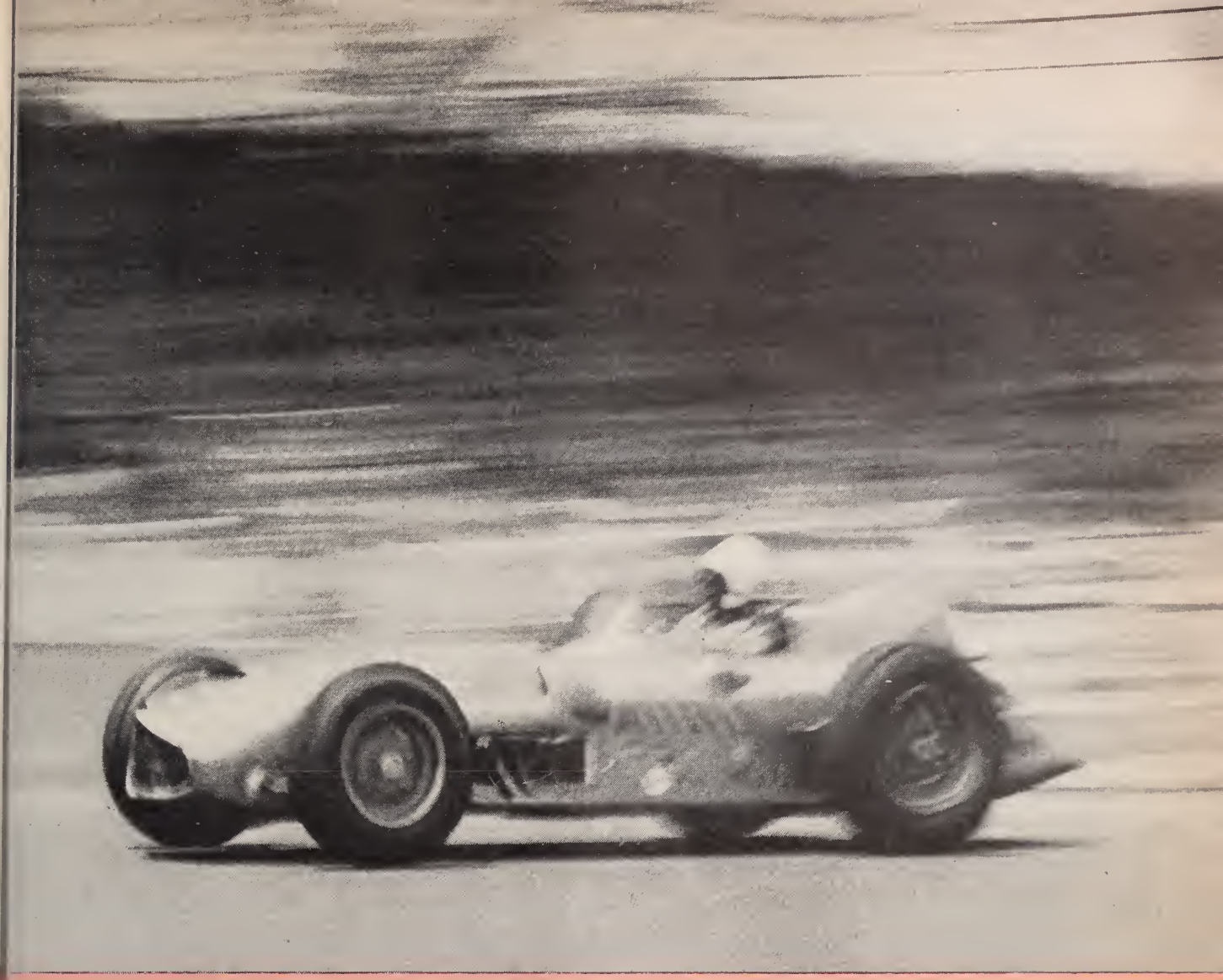
The Midwest Interprofessional Conference will be held at Iowa State University, Ames, Iowa, September 17-18, 1962. This conference was formed several years ago to aid members of the various professions to keep abreast of research on diseases common to animals and man. Papers will be presented in the areas of leukemia complex, toxoplasmosis, salmonellosis, trichinosis and aging and vascular change.

The American Heart Association has scheduled six all-day programs on clinical cardiology of primary interest to the practicing physicians at its annual Scientific Sessions. The 1962 Scientific Session will be held from October 26 through 28 in Cleveland.

The Annual Scientific Assembly of Interstate Postgraduate Medical Association to be held in Chicago, October 1-4, offers 20½ hours of varied teaching for a registration fee of $10. The program is especially suited to the needs of generalists, as all lectures, panels and clinics are closely related to medical problems familiar to the physician who does not devote his time to a single specialty. Details may be obtained from N. A. Hill, M.D., Interstate Postgraduate Medical Association, Box 1109, Madison 1, Wisconsin.

The American Public Health Association's Annual meeting is scheduled for Miami Beach, October 15-19.

"The Clinical Impact of a Quarter Century of Cancer Research" is the topic of the 1962 Scientific Session of the American Cancer Society in New York October 22-23.



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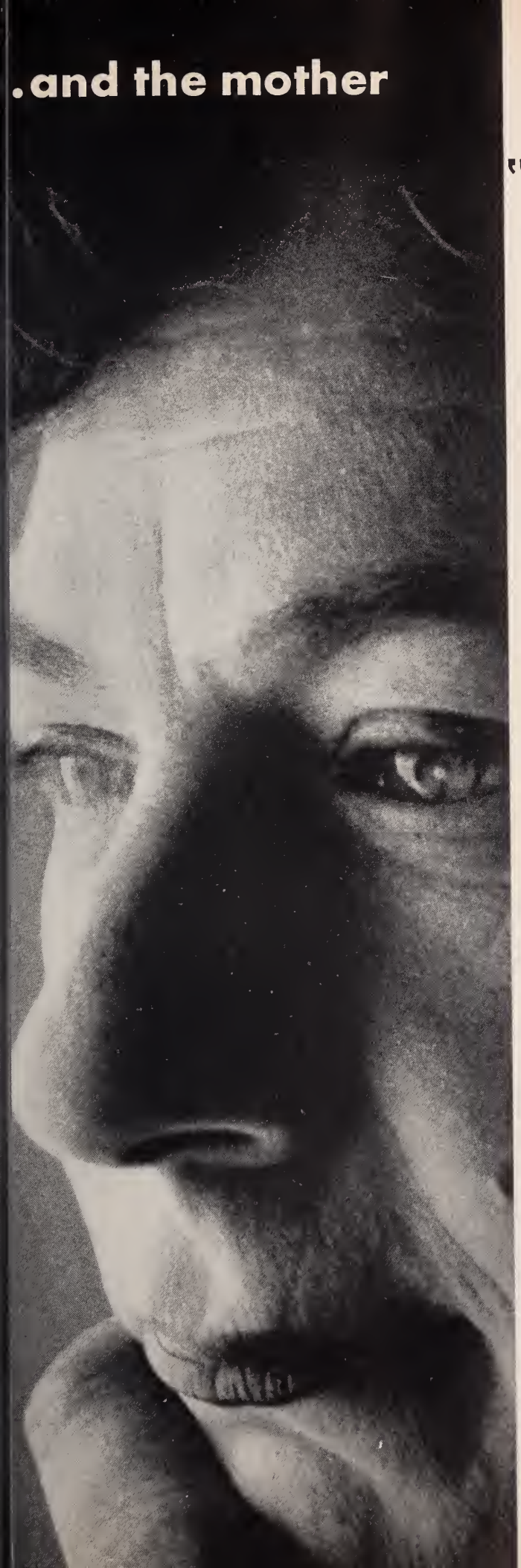
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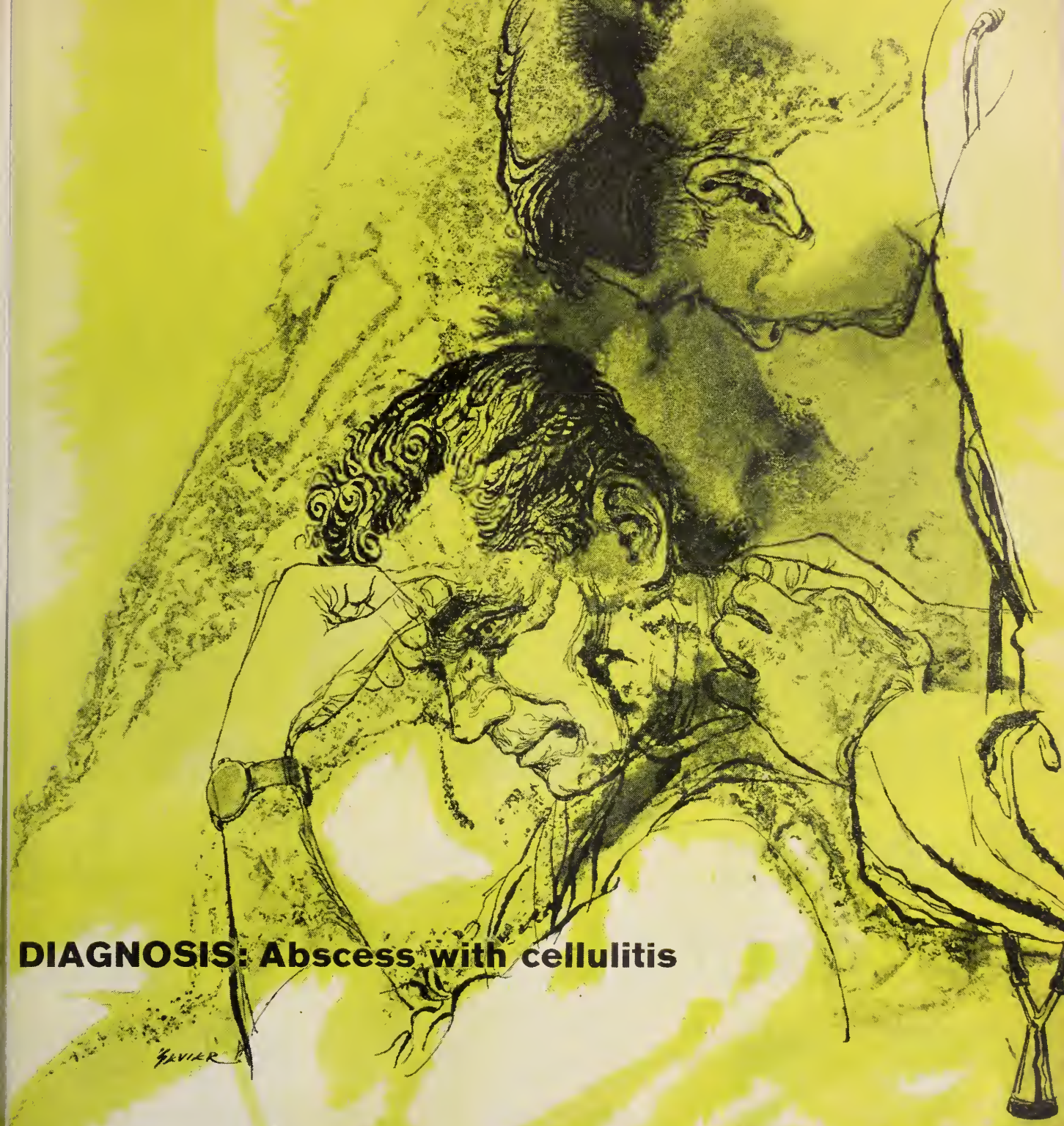
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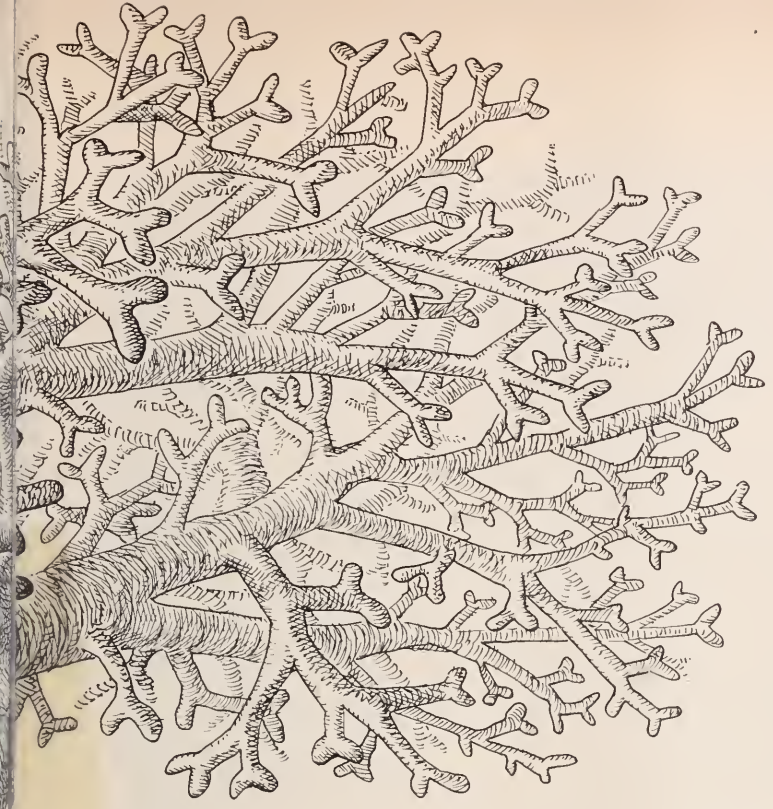
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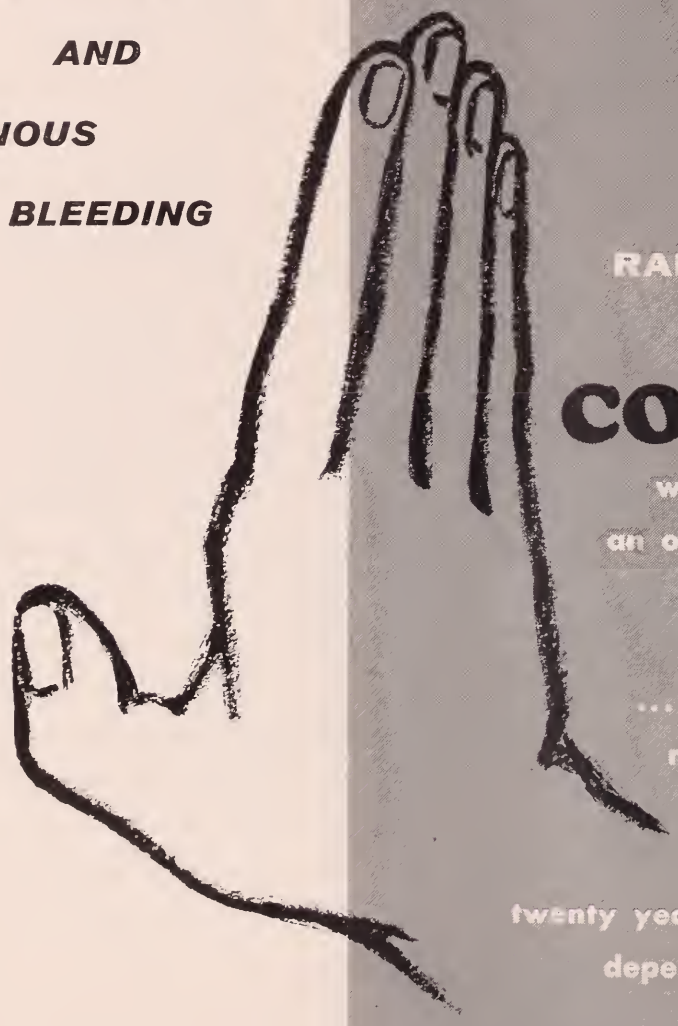
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Effect of Hexachlorophene-Detergent Baths in a Newborn Nursery

With Emphasis on the Care of Circumcisions

Harvey Kravitz, M.D., John B. Murphy, M.D., Kasem Edadi, M.D., August Rosetti, M.D., and Hebatollah Ashraf, M.D., *Evanston*

Numerous Studies and Reports showing the effectiveness of hexachlorophene-detergent in reducing infection due to staphylococci in newborn nurseries have been reported in the literature.[1-10] The primary purpose of this paper was to study the long term bacteriologic and clinical effects following the introduction of a comprehensive hexachlorophene-detergent program in a newborn nursery and compare the data with the results obtained in a control nursery using the dry-skin care technique. The second purpose was to investigate the effect of hexachlorophene-detergent baths and antibiotic ointments in the postoperative care of the circumcised newborn infant. The entire study was carried out over a period of 42 months, including a continuous 16-month survey of two newborn nurseries.

Methods

At St. Francis Hospital there are two completely separate nurseries on different floors of the hospital.

The fourth floor nursery was chosen as the experimental (hexachlorophene-detergent) nursery. The newborn infants on this floor were all given a hexachlorophene-detergent bath immediately after birth and every other day during their stay in the hospital. The newborn infants were bathed on a special metal rack which was placed over a large sink. Every part of the body, including the face, hair, umbilical cord and genitalia was bathed with hexachlorophene-detergent* and running tap water. No alcohol or dye was used to cleanse the umbilical cord. Each mother on the fourth floor was given a plastic dispenser of hexachlorophene-detergent for washing her hands prior to receiving the baby. Hexachlorophene-detergent was also employed exclusively on this floor by the examining physicians and nurses in scrubbing their hands.

The third floor nursery, used as the control nursery, used the dry-skin technique of caring for the skin. No infant was bathed during the hospital stay. No alcohol or dye was used to cleanse the cord. A soap containing no hexachlorophene was employed by the nurses and

From the Department of Pediatrics, St. Francis Hospital, Evanston, Illinois.

*Hexachlorophene-detergent (pHisoHex®) was supplied by Winthrop Laboratories, New York, N. Y.

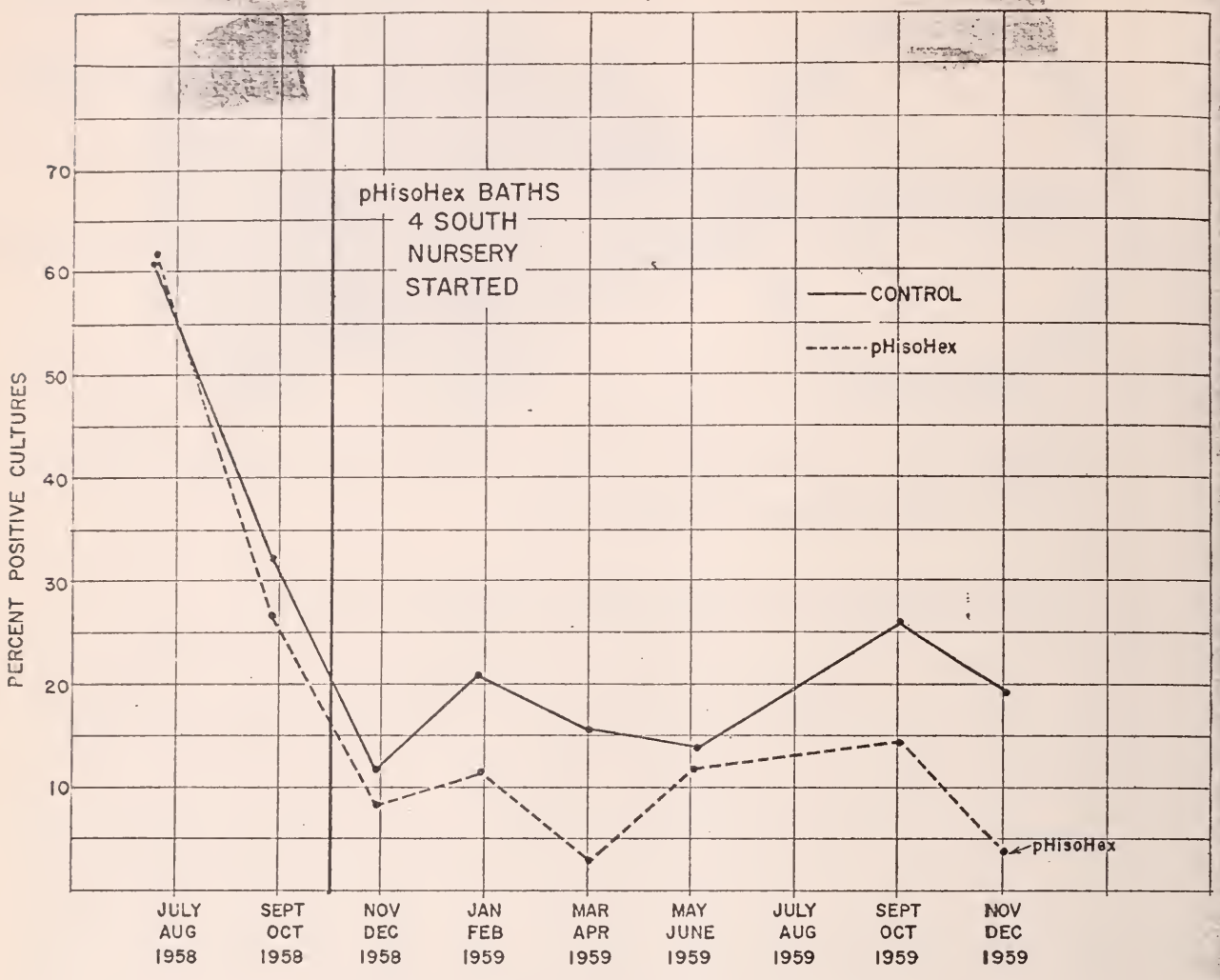


FIGURE 1. Comparative incidence of coagulase positive Staph. aureus in experimental and control nurseries.

examining physicians for washing their hands. The mother received no special instructions in regard to washing the hands prior to receiving their infants for feeding.

The first four months were an observation period wherein both nurseries were kept on dry care. Cultures were obtained from infants in both nurseries from the nose, skin of the axilla, umbilicus and penis. The cultures were done simultaneously and were done only on the fourth or fifth day in order that the infants would be thoroughly exposed to any *Staph. aureus* present in the nursery. Nose and throat cultures were done on the nurses of both floors every month for six months. The technique of obtaining the culture was to inoculate a dry sterile swab containing the specimen into a sterile beef broth media which was then transferred to 5 per cent blood agar plates. Phage typing on coagulase positive *Staph. aureus* was done at the laboratories of the Illinois Department of Public Health.

A separate series of cultures of the penis was done before and two days after circumcision. Antibiotic ointments were applied each day postoperatively to the penis of all of the 519 male infants in the fourth floor nursery. Cultures of the penis were obtained on 186 newborn infants. The hexachlorophene-detergent bath technique continued to be used in this group. A second series of cultures of the penises of the circumcised newborn infants in the fourth floor nursery was done using a Polymyxin B-Neomycin combination (Neosporin®*) alone without the hexachlorophene-detergent baths. Cultures of the penis in the dry care nursery were also done and the results com-

*Supplied by Burroughs Wellcome Co., Tuckahoe, N. Y.

TABLE 1.

NASAL CULTURES OF NEWBORN INFANTS

Organisms	Control Nursery — 3 South (Dry Care)						Experimental Nursery — 4 South (Hexachlorophene Detergent Bath)					
	Pre-Hexachlorophene Detergent Period			Hexachlorophene Detergent Period 4 south only			Pre-Hexachlorophene Detergent Period			Hexachlorophene Detergent Period 4 south only		
	Cases	Cult.+	%	Cases	Cult.+	%	Cases	Cult.+	%	Cases	Cult.+	%
Staph. aureus coagulase+	38	22	57.9	113	23	20.3	64	32	50.0	167	18	10.7
Proteus vulgaris				113	2	1.6						
Staph. aureus coagulase—	38	5	13.1	113	5	4.3	64	13	20.3	167	19	11.3
Beta hemo. strep.	38	2	5.2	113	2	1.6	64	1	1.5	167	3	1.8
Alpha strep.	38	8	22.2	113	46	40.7	64	15	23.4	167	29	17.4
Gamma strep.				113	6	5.3				167	13	7.7
Aerobacter aerogenes	38	2	5.2	113	3	2.6	64	5	7.8	167	8	4.8
E. coli	38	11	28.9	113	24	21.2	64	18	28.1	167	39	23.3
Staph. albus	38	15	39.4	113	112	99.1	64	20	31.2	167	107	60.5
Pseud. aeroginosa										167	4	20.3
Neiserria catarrhalis										167	1	.6
E. intermedium				113	2	1.6				167	1	.6

pared to those obtained in the group of newborn infants having hexachlorophene-detergent baths alone. Circumcisions in both nurseries were done with Gomco clamp in all cases. The skin of the penis was prepared with hexachlorophene-detergent in the fourth floor nursery. A liquid soap not containing hexachlorophene was used on the skin of the penis of newborn infants in the control nursery. Cultures were obtained in the same manner as in the previous series.

A total of 753 infants were studied and 1,884 cultures were obtained.

Results

The results of simultaneous cultures taken from the nose, axilla, umbilicus and penis are recorded in Tables 1 through 4. These show the significant drop in the percentage of coagulase-positive *Staph. aureus* in the experimental nursery.

Figure I illustrates the overall monthly decrease in the incidence of coagulase-positive *Staph. aureus* in the experimental (hexachlorophene-detergent) nursery. Table 5 summarizes the phage types found in the nurseries prior to and after the introduction of hexachlorophene-detergent. The results of a preliminary study of the effect of antibiotic ointments applied to the circumcised penises of newborn male infants are shown in Table 6.

The incidence of coagulase-positive *Staph. aureus* in the nursery personnel was somewhat higher in the (hexachlorophene-detergent) experimental nursery than in the control nursery. The incidence was 3.5 per cent in the hexachlorophene-detergent nursery and 1.7 per cent in the control nursery. The chief nurse in the former nursery had an 80/81 strain of coagulase positive *Staph. aureus* on four occasions. This coincided with the high incidence of *Staph. aureus* in the experimental (hexachlorophene-detergent) nursery during the first four months of the study prior to the introduction of hexachlorophene-detergent baths. Following the introduction of hexachlorophene-detergent baths infrequent sporadic cases of coagulase positive *Staph. aureus* carriers were detected in the nurses of both nurseries.

Discussion

It is clear from the data that the hexachloro-

TABLE 2.

SKIN CULTURES OF NEWBORN INFANTS

Organisms	Control Nursery — 3 South (Dry Care)						Experimental Nursery — 4 South (Hexachlorophene Detergent Bath)					
	Pre-Hexachlorophene Detergent Period			Hexachlorophene Detergent Period 4 south only			Pre-Hexachlorophene Detergent Period			Hexachlorophene Detergent Period 4 south only		
	Cases	Cult.+	%	Cases	Cult.+	%	Cases	Cult.+	%	Cases	Cult.+	%
Staph. aureus coagulase+	38	16	42.1	113	24	21.2	64	17	26.5	167	17	9.5
Proteus vulgaris	38	1	2.7	113	1	0.7	64	1	2.7	167	6	3.5
Staph. aureus coagulase—	38	6	15.7	113	5	4.3	64	17	26.5	167	14	7.3
Beta hemo. strep.	38	2	5.2	113	2	1.6	64	1	1.5	167	4	2.3
Alpha strep.	38	3	7.8	113	30	26.5	64	2	3.1	167	16	9.5
Gamma strep.				113	10	8.8				167	9	5.3
Aerobacter aerogenes	38	2	5.2	113	5	4.3	64	4	6.2	167	15	8.9
E. coli	38	5	13.1	113	39	34.4	64	14	21.8	167	56	29.9
Staph. albus	38	14	36.8	113	98	86.7	64	35	54.6	167	103	61.6
Alcaligenes faecalis	38	1	2.7							167	1	0.5
Pseud. aeroginosa										167	6	3.5
Neiserria catarrhalis										167	1	0.5
E. intermedium				113	3	0.7						
Proteus mirabilis										167	1	0.5

phene-detergent causes significant reduction in the *Staph. aureus* coagulase positive cultures in all sites cultured in the fourth floor experimental (hexachlorophene-detergent) nursery. Our results also show that hexachlorophene-detergent does not exert a significant change in the rest of the flora found on the skin, umbilicus and penis. The highest incidence of coagulase positive *Staph. aureus* prior to the introduction of hexachlorophene-detergent was found to be in the penis and the umbilicus. This is in accordance with the work of Hurst.[11] These observations demonstrate that cultures of a single site, such as the nose or throat, do not give us an accurate picture of the widespread presence of *Staph. aureus* over several sites in the newborn infant.[12,13]

It is interesting to note that our data, as well as the data of Hurst,[11] Gezon,[14] Wolinsky[15] and Gluck[16,17] seem to support the greater importance of person to person transmission when compared to the aerial route. The percentage of *Staph. aureus* coagulase positive in the nursery employing hexachlorophene-detergent was 9 per cent compared to 3 per cent in Gluck's series.[17] This can be attributed to a chronic carrier of *Staph. aureus* in the hexachlorophene-detergent nursery and the higher incidence of *Staph. aureus* in our nurseries prior to the introduction of hexachlorophene-detergent baths.

The finding of a small percentage of beta-hemolytic streptococci on all four sites in our newborn nursery is not surprising since this has been frequently reported in the older literature and has been the subject of a recent study by Kwantes in 1956.[18]

It is also interesting to note that during the four month observation period of both nurseries, prior to the introduction of hexachlorophene-detergent, a drop in the incidence of coagulase positive *Staph. aureus* occurred in both nurseries as a result of the personnel seeing and knowing about the cultures being taken on themselves as well as the newborn infants. This illustrates how short term evaluation of the effect of hexachlorophene-detergent without adequate controls can be misrepresented. The nurses in the hexachlorophene-detergent nursery reported no skin irritation or dermatitis on the skin of the infants due to washing with the hexachlorophene-detergent.

TABLE 3.

UMBILICUS CULTURES OF NEWBORN INFANTS

Organisms	Control Nursery — 3 South (Dry Care)						Experimental Nursery — 4 South (Hexachlorophene Detergent Bath)					
	Pre-Hexachlorophene Detergent Period			Hexachlorophene Detergent Period 4 south only			Pre-Hexachlorophene Detergent Period			Hexachlorophene Detergent Period 4 south only		
	Cases	Cult.+	%	Cases	Cult.+	%	Cases	Cult.+	%	Cases	Cult.+	%
Staph. aureus coagulase+	38	15	39.4	113	30	26.5	64	34	53.1	167	17	10.2
Proteus vulgaris			0	113	2	1.0	64	2	3.1	167	5	2.9
Staph. aureus coagulase—	38	7	18.4	113	9	7.9	64	9	14.0	167	15	8.9
Beta hemo. strep.	38	2	5.2	113	1	0.8	64	2	3.1	167	4	2.3
Alpha strep.	38	12	31.5	113	28	24.6	64	24	37.5	167	17	7.7
Gamma strep.			0	113	7	6.1	64	1	1.5	167	6	3.5
Aerobacter aerogenes	38	3	7.8	113	2	1.6	64	7	10.9	167	15	8.9
E. coli	38	11	28.9	113	22	19.4	64	13	20.3	167	52	31.1
Staph. albus	38	8	22.2	113	82	72.5	64	24	37.5	167	87	52.1
Alcaligenes faecalis	38	1	2.7	113	1	0.7			0			
Pseud. aeroginosa			0						0	167	4	2.3
Neiserria catarrhalis			0						0	167	1	0.5
E. intermedium			0						0	167	1	0.5
Proteus mirabilis			0						0	167	1	0.5
E. freundi			0						0	167	1	0.5

No epidemics of impetigo or skin abscesses occurred in either nursery. No skin irritation or skin rashes were observed on the skin of newborn infants in the experimental (hexachlorophene-detergent) nursery. The incidence of impetigo during the study was very low, only one case of impetigo being found in the experimental (hexachlorophene-detergent) nursery and five cases in the control nursery for an incidence of 0.03 per cent and 0.11 per cent respectively for the years 1958-1959. This compares with an incidence of impetigo of 0.22 per cent in the pre-hexachlorophene-detergent experimental nursery and 0.19 per cent in the control nursery for the 1956-1957 period. No cases of sepsis or neonatal meningitis were found in either nursery from 1958 to 1960, while four cases of neonatal meningitis and one case of fatal sepsis due to coagulase positive Staphylococcus aureus were found in 1956-1957.

The improvement in the flora of the umbilical cord with hexachlorophene-detergent baths gives rise to the question of using triple dyes as described by Jellard.[19] Gluck[17] states that hexachlorophene-detergent baths appear to be superior to the triple dye technique in reducing the incidence of coagulase positive *Staph. aureus* on the umbilicus. Our percentage of coagulase positive *Staph. aureus* was 8 per cent compared to 2 per cent in Gluck's series. This difference was probably due to the higher incidence of the coagulase positive *Staph. aureus* in our nursery personnel. It is important to note that the umbilical cords healed uneventfully following the hexachlorophene-detergent baths. No clinical evidence of omphalitis was observed in either nursery.

Special attention to the care of the penis was given because of the unexpected high incidence of coagulase positive *Staph. aureus* at that site.

The postoperative care of the circumcision has been a problem since biblical times when it was practiced by the Jews, Phoenicians and the Egyptians.

References to the various types of substances used in the postoperative care of the circumcision are found in Remondino's classical book of the history of circumcision.[20] He mentions the use of cumin seeds, alum powder, creosote, benzoated zinc oxide, "dragon's" blood, oint-

TABLE 4.

PENIS CULTURES OF NEWBORN INFANTS

Organisms	Control Nursery — 3 South (Dry Care)						Experimental Nursery — 4 South (Hexachlorophene Detergent Bath)					
	Pre-Hexachlorophene Detergent Period			Hexachlorophene Detergent Period 4 south only			Pre-Hexachlorophene Detergent Period			Hexachlorophene Detergent Period 4 south only		
	Cases	Cult.+	%	Cases	Cult.+	%	Cases	Cult.+	%	Cases	Cult.+	%
Staph. aureus coagulase+	32	22	68.7	84	12	14.2	27	18	66.6	125	10	8.0
Proteus vulgaris	32	0	0	84	2	2.3	27	1	3.7	125	0	0
Staph. aureus coagulase—	32	6	18.7	84	37	44.0	27	1	3.7	125	50	40.0
Beta hemo. strep.	32	2	6.2	84	1	1.1	27	0	—	125	3	2.4
Alpha strep.	32	9	28.2	84	15	17.8	27	4	14.4	125	24	19.5
Gamma strep.	32	0	0	84	0	0	27	0	—	125	0	0
Aerobacter aerogenes	32	5	15.6	84	4	4.8	27	4	14.4	125	17	13.4
E. coli	32	16	50.0	84	21	25.0	27	2	7.4	125	25	20.0
Staph. albus	32	12	37.5	84	22	26.1	27	6	22.2	125	30	30.4
Alcaligenes faecalis	32	2	6.2	84	0	0	27	0	—	125	0	—
Pseud. aeroginosa	32	0	—	84	0	0	27	0	—	125	1	0.7
Proteus morgagni	32	0	0	84	3	3.5	27	0	—	125	1	0.7
Proteus mirabilis	32	0	—	84	4	4.8	27	0	—	125	0	—
Proteus rettgeri	32	0	—	84	1	1.1	27	0	—	125	1	0.7

ment of roses and lycopodium powder. Up to the present time sterile vaseline has been the only addition to our postoperative care of the circumcision. It's use is almost universal in this country.

Our data shows the hexachlorophene-detergent baths and the pre-circumcision hexachlorophene-detergent washes of the penis alone and in combination with antibiotic ointments resulted in a significant decrease in the percentage of coagulase positive *Staph. aureus.* The lowest percentage obtained with a combination of antibiotic ointments and hexachlorophene-detergent baths was 1.1 per cent. The next lowest percentage was 3.1 per cent with Neosporin alone and no bath. The hexachlorophene-detergent baths and the pre-circumcision hexachlorophene-detergent washes of the penis without the antibiotic ointment resulted in an increase to 8 per cent. Dry skin care with sterile vaseline gauze to the penis resulted in an increase to 14.3 per cent.

These results indicate that both hexachlorophene-detergent and the antibiotic ointment exert a greater protection against the colonization of coagulase positive *Staph. aureus* compared to the traditional dry skin care and vaseline and gauze technique. No case of delay in healing of the circumcision was noted in 519 cases in which postoperative antibiotics and hexachlorophene-detergent baths were employed.

No report or observation of sensitization to the topical antibiotics was noted.

The high incidence of coagulase positive *Staph. aureus* on the penis and the umbilical cord and smaller incidence in the nose and throat can be explained by the fact that these areas are more frequently touched by the hands of the nurses than any other part of the body due to the frequent diaper changes. The blood on the cord and the circumcised penis provide an excellent media for growing bacteria. Gluck believes that the infant's random hand movements spread Staphyloccoci from the umbilicus and skin to the nose and throat. Shaffer[21] has shown that cultures of the diapers in the newborn nurseries have a very high count of coagulase positive *Staph. aureus* providing further support to the high incidence of coagulase positive *Staph. aureus* in the penis and umbilical area.

Table 5.

Phage Typings Found in Cultures of Infants After Hexachlorophene-Detergent Baths Were Begun

Control Nursery	Experimental Nursery
80/81 (2)	80/81
29/79/52/52A/80/42D/81 (2)	79/47/53/77/971
3 A/42D	52 A
52/80/54/73	52 A
3A	7/42E/47/54/75
7/77	79/52A/80
79/53/77/83/(VA4) (4)	52/52A/420
53/77	7/77

Table 6.

Effect of Hexachlorophene-Detergent Baths and Pre-Circumcision Hexachlorophene-Detergent Washes Alone with Antibiotic Ointments on the Cultures of Coagulase Positive Staphylococcus Aureus on the Penises of Circumcised Newborn Infants

Treatment	Cases	Positive Cultures	Percentage
Hexachlorophene-Detergent alone	125	10	8 %
Dry care (control)	84	12	14.3%
Hexachlorophene-detergent antibiotic ointment	90	1	1.1%
Dry care	76	11	14.4%
Neosporin alone	96	3	3.1%

Summary

Cultures of the nasopharynx, axilla, umbilical cord and the penis were obtained simultaneously showing a higher incidence of coagulase positive *Staph. aureus* in the penis and umbilical cord of the newborn infants in our study.

Hexachlorophene-detergent baths and pre-circumcision hexachlorophene-detergent washes of the penis decreased the incidence of coagulase positive *Staph. aureus* in the nasopharynx, axilla, penis and umbilical cord of the newborn infants in our series.

Antibiotic ointments applied to the circumcised penis alone and in combination with hexachlorophene-detergent baths resulted in a greatly reduced incidence of coagulase positive *Staph. aureus* at this site.

It is suggested that hexachlorophene-detergent baths and Polymyxin B-Neomycin ointment be employed in the postoperative management of the circumcision of newborn infants.

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Benign Inflammatory Dermatoses of the Vulva

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Many of the Hundreds of skin diseases may manifest themselves on the vulva. However, the classical appearance of these diseases may be markedly modified in intertriginous areas by friction, occlusion, and maceration. These factors lead to striking similarities in the clinical picture of many dermatoses occurring on the vulva, and consequent difficulty and confusion in diagnosis of diseases which on non-intertriginous areas would present little problem.

Since effective and successful therapy is dependent on accurate diagnosis, it is necessary to be as familiar as possible with the minor clinical characteristics which usually will differentiate the various dermatologic entities by careful visual inspection. It is also necessary to be familiar with, and prepared to use, the special techniques of culture, biopsy, and immediate microscopic examination of skin scrapings. However, even these important measures often become unnecessary following a careful history and examination of the complete integument of the patient. Frequently what seems to be a non-specific and confusing inflammation when viewed on the vulva only, becomes strikingly clear when a classical lesion of a specific skin disease is found elsewhere on the body.

Fungus Infections

Errors in diagnosis of fungus infections of the groins and genitalia seem to be more common with females than with males. Diagnosis is more commonly overlooked in the female, perhaps because of a lower index of suspicion. Conversely, dermatitis of the vulva and groins is often treated as a ringworm infection without adequate clinical or laboratory justification.

Although the clinical picture may be disguised by maceration, scratching, and previously applied medications, the characteristic picture is that of reddish, brownish, or fawn-colored, slightly scaling patches with rather sharp, slightly elevated, more active borders. Clearer clinical confirmation often may be obtained by examining the posterior upper thighs and buttocks, where lesions undisturbed by previously mentioned factors may sometimes be found.

Rapid confirmation of a clinical impression of tinea infection may be made in the office by microscopic examination of a KOH preparation of skin scrapings. Confidence in treatment is greatly enhanced by the finding of hyphae.

In the treatment of all inflammatory dermatoses of the vulva basic dermatologic principles of therapy must be followed. The more acute the process, the milder and more soothing the treatment must be before starting more specific and energetic measures. Factors of occlusion and maceration which may cause flare of the dermatitis originally also frequently operate to enhance the irritating action of topical medications; therefore medications which may be tolerated elsewhere on the skin may severely aggravate the vulva. After the acute process has been calmed by rest, exposure, wet dressings, and soothing lotions, mild fungicidal topical preparations may be instituted. If these measures are not sufficient, griseofulvin may be given orally.

Moniliasis

This disease has a predilection for moist intertriginous areas, and when lesions are found on the vulva, groins, perineum, or gluteal cleft, the other intertriginous areas also should be examined. The primary lesion is a small reddish papule which rapidly develops into a vesicle or

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vesico-pustule. As these become grouped, and then macerated, a smooth, bright red, moist area surrounded by sodden, whitish, undermined epithelium appears. This finding alone or with numerous characteristic satellite primary lesions described above may be sufficient for diagnosis.

However, the collarette of undermined scale around the margin of large plaques or ruptured vesicles of primary lesions may reveal numerous small hyphae and spores on microscopic examination of a KOH preparation, thus supporting the clinical impression. Culture on dextrose agar usually results in rapid growth.

Treatment of all inflammatory diseases of the vulva is improved by minimizing the aggravating mechanical factors. Correction of obestiy may be an important adjuvant in keeping the are as dry and clean. Diabetes and monilial vaginitis must be detected and treated when present to insure best results of therapy. Gentian violet solution is the time-honored treatment for moniliasis. Nystatin, amphotericin or vioform lotions and creams may be effective with less mess, and nystatin by mouth may help eliminate a gastrointestinal focus.

Seborrheic Dermatitis

This condition of the vulva and groins is frequently overlooked. It may present the characteristic picture of superficial, erythematous, scaly patches with a yellowish cast and ill-defined borders seen on non-intertriginous areas, but more often the clinical picture in intertriginous areas is nonspecific, and diagnosis is made by 1) eliminating the possibility of specific infection and 2) the finding of other similar lesions in the classical sites, i.e., scalp, ears, eyebrows, nasolabial folds and sternal area. As a result of chronic scratching, seborrheic dermatitis of the vulva may become lichenified and be indistinguishable from lichen simplex chronicus.

Classic treatment consists of sulfur and salicylic acid in concentrations and vehicles suited to the clinical stage of the dermatitis. Hydrocortisone preparations have been a tremendous aid in treatment without risk of irritation when the appropriate vehicle is chosen. Liquor carbonis detergens may be added to combat lichenification, and Grenz rays as employed by the dermatologist usually speed recovery.

Psoriasis

There usually is no difficulty in diagnosis, even for the non-dermatologist, when psoriasis appears classically on the usual sites. On the vulva, however, consideration may not be given to this fairly common disease because its appearance may be less specific. Psoriasis should be considered in the differential diagnosis of all inflammatory conditions of the vulva where a diagnosis cannot be made by clinical inspection, and clues as to the diagnosis sought by complete inspection of the integument. Psoriasis of the vulva and other intertriginous areas is frequently referred to as psoriasis inversus, and although psoriatic lesions on the elbows, knees, scalp, and trunk may be absent in this condition, they should be sought. Often small classical lesions may be found just beyond the margins of large patches which have been subject to maceration. Thickening and crumbling of the nails, separation of the nail plate from its bed, or fine pinpoint stippling of the nail plate may provide valuable diagnostic clues.

There is no specific therapy for psoriasis, but salicylic acid, ammoniated mercury, and tar preparations in appropriate concentrations are effective. Topical steroids applied to psoriatic lesions in intertriginous areas sometimes have an effect equivalent to that seen when they are applied under occlusive dressings in nonmacerated sites. Grenz rays also may be markedly helpful.

Lichen Planus

This may be one of the easiest conditions to diagnose if one is familiar with its apperance on mucous membranes as well as ordinary skin. However, it is frequently mistaken for leucoplakia. On the mucous membranes of the vulva and mouth it may appear as a distinctive lacy network of fine white lines or circles, as small white papules, or as larger white plaques. In at least 50 per cent of cases, lichen planus of mucous membranes is associated with lesions on the skin, and although the most common sites are inner thighs, wrists, lower back, and ankles, any part of the integument may be in-

volved. Chronic papules and plaques have a rather characteristic purplish color, and the surface may be greyish and rough. More acute lesions are usually smaller and have a characteristic flat, shiny surface. Sometimes a network of grey lines may be seen in the lesion.

If asymptomatic, lichen planus lesions on the vulva may be ignored and the patient reassured. However, itching may be severe, and no specific remedy is available. Oral tranquilizers, sedatives and antipruritics may be employed, as well as topical antipruritics and topical hydrocortisone under occlusive dressings held in place by tight panties.

Lichen Simplex Chronicus

This condition, also known as localized neurodermatitis, may start of itself, or it may be secondary to any of the previously discussed conditions or to other irritation. Principal clinical features are thickening of the skin and exaggeration of the normal skin lines due to continual scratching (itching usually is intense). Although the exact cause is unknown, nervous tension and habit formation are considered important contributing factors. The patches may occur practically anywhere, but in women the labia, inner thighs, perianal area and nape of the neck are common sites. Differential diagnosis may be accomplished by clinical appearance, history, absence of fungi in scrapings, and biopsy.

Successful treatment is based on control of the pruritus, which may be accomplished by elimination of external irritants, topical steroid and tar preparations, occlusive and protective dressings, small doses of Grenz rays, and relief of aggravating emotional factors. Steroids injected into and under small patches are effective.

Bacterial Infections

Folliculitis and abcesses have much the same appearance as elsewhere. Treatment consists of cleanliness, frequent change of clothing in contact with the area, topical antiseptics, topical antibiotics which are not used systemically and thus possess minimal sensitizing potential, and elimination of the source of infection when possible. Hidradenitis suppurativa is a more difficult problem, often requiring compresses, oral antibiotics, and surgery. Steroids administered orally for a short period in combination with antibiotics may help bring an otherwise severe recalcitrant process under control.

Impetigo on the vulva may be secondary to scabies or pediculosis, and these must be eliminated if the impetigo is to remain cured. Aphthous vulvitis manifested by numerous shallow, sharply marginated ulcers may simulate impetigo or herpes, but the cause is unknown, and the symptoms often more severe. It subsides spontaneously with rest, exposure of the parts as much as possible, cleanliness, and application of soothing wet dressings.

Vesicular Lesions

These include allergic contact dermatitis, herpes simplex progenitalis, herpes zoster, dermatitis herpetiformis, and erythema multiforme, among others. Recurrent grouped vesicles on an erythematous base will suggest herpes simplex, though recurrent drug eruption, and erythema multiforme, which may be drug-induced, may mimic the clinical picture. Herpes zoster of the vulva will usually be associated with other grouped vesicular lesions in the same sensory nerve zone. Dermatitis herpetiformis will be extremely pruritic and associated with patches of grouped vesicles scattered irregularly elsewhere on the body. Erythema multiforme may present diverse appearances, but lesions on the vulvar mucosa may be associated with lesions on the buccal mucosa, and fever, as in the Stevens-Johnson syndrome, as well as classical iris type lesions on the elbows, knees, and hands. Drugs may cause a simple red or purple macular patch, or an edematous plaque, as well as vesicular lesions, constantly flaring in the same site on re-administration of the drug, and waning spontaneously on abstinence from exposure.

Treatment for herpes simplex is symptomatic, with search for the trigger factor. Herpes zoster is self-limited also, as is erythema multiforme. Drug eruptions naturally require withdrawal of the offending agent, and dermatitis herpetiformis is controlled by constant administration of sulfa drugs, of which sulfapyridine is usually best, in dosage just sufficient to suppress symptoms.

Allergic Contact Dermatitis

This condition may occur on the vulva as elsewhere, and be due to innumerable contactants such as antiseptics, deordorants, douche solutions, sanitary pads, soaps, clothing, dyes, nail polish, and topical medications, to name just a few. Diagnosis is based on the classical acute signs of sudden onset, erythema, edema, vesicles, and margins limited to areas of contact. With chronicity, thickening and scaling become evident. Careful questioning is necessary to elicit the possible cause, for many patients refuse to accept the fact that something they have used for years may now be the cause of their difficulty. Thus, the cause must be proved to the patients, as well as to ourselves, by the use of patch tests.

Successful cure is dependent upon the elimination of the offending agent and soothing therapy. Topical anesthetics should be avoided because of their potential sensitizing action, and often they are an unrevealed cause of the patient's difficulty.

Unfortunately, discussion of inflammatory dermatoses of the vulva still must include mention of syphilis, for primary and secondary lesions of this disease may mimic many of the diseases already discussed, and we cannot yet eliminate it from consideration in our diagnosis.

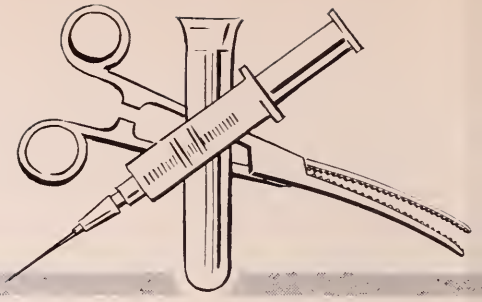
Conclusion

Diagnosis of dermatologic conditions on the vulva may at times be exceedingly easy and based on simple visual inspection. At other times the establishment of an accurate diagnosis may be difficult and demand extensive clinical and laboratory examination. It is necessary that every effort be used to establish an accurate diagnosis before treatment is begun, for when treatment fails, it may also make an already difficult diagnosis even more obscure.

Normal Drinking in Recovered Alcoholics

That complete cures of alcohol addiction, as shown by a return to normal drinking, do occur has been reported from time to time, though in somewhat diffident terms because of the strength of the widely held view that they do not occur. Thus Lemere found, on analyzing accounts by patients of their antecedents, that 3 per cent of 500 presumed problem drinkers had reverted to normal drinking and concluded that "once an alcoholic always an alcoholic" is not wholly true. Shea reported a single "exceptional" case history of a psychoanalytic patient "who drank to violent excess for more than 20 years," then abstained for 5 years, "and since then for 5 years . . . has been a sparing, controlled drinker." Norvig and Nielsen, in a follow-up of 221 Danish alcoholics, found that "some . . . drink occasionally though not more than is compatible with attention to their work and, in most cases, with preservation of their social status." After recording the prevailing view that "moderate" drinking is never restored, they added, "nevertheless we believe we have seen patients here who have been able to achieve this in their resocialized existence." Selzer and Holloway, in a 5-year follow-up of 98 alcoholics, reported that "The fact that 16 per cent of 83 patients were able to return to social or nonpathological drinking seems to warrant a second look at the long-cherished theory that no alcoholic can ever become a moderate drinker."

We may conclude, on the basis of the present series and the other reports cited from the literature, that some alcohol addicts do return to normal drinking. *D. L. Davies, M.A. Normal Drinking in Recovered Alcohol Addicts. Quart. J. Stud. Alcohol. Vol. 23.*



Clinical · Surgical Conferences

Cook County Hospital

Head Injuries

Moderator: John A. Boswick, Jr., M.D.
Department of Surgical Education, Cook County Hospital
Department of Surgery, Northwestern University Medical School
Discussant: Joseph Evans, M.D.
Professor of Neurosurgery, University of Chicago

Dr. John Boswick: The possibility of a patient who has had an acute head injury obtaining his initial treatment from a trained neurosurgeon is slight indeed. However, these injuries are not rare, and the improvements in their diagnosis and treatment speaks well for the medical profession and the teaching of this specialty of surgery. This hospital has always treated a large number of patients with head injuries and has recognized its obligations in the teaching of this problem. In fulfillment of this, we have with us today an authority in the field of head injuries, Dr. Joseph Evans, Professor of Neurosurgery at the University of Chicago. He is also the author of a book on acute head injuries, and has produced a movie for the ACS on this problem. We will change our protocol slightly and start this conference with the showing of this movie (the movie was shown at this point), after which we will present a case report and ask for Dr. Evans' comment.

Case Report

This 50-year-old Negro male was admitted to Cook County Hospital at 3:45 P.M. on April 15, 1958 in a semi-comatose state. History was essentially unobtainable. The patient was disoriented as to time, place, or person. Past history obtained from a daughter revealed treatment for hypertension for several years and for a bleeding ulcer during the past year. Approximately three months prior to admission, the patient was involved in an automobile accident and was unconscious for fifteen to twenty minutes. He had complained of a nonspecific progressive headache for about two weeks. On the morning of admission he was found in bed, complaining of being sick and unable to walk. Physical examination revealed a well-developed, well-nourished, Negro male with a pulse of 112 and a blood pressure of 160/100. There was a slight ptosis of the right eye lid, and the patient responded slightly to painful stimuli. An apical systolic murmur was noted as well as a 2/3 finger enlargement of the liver. Deep tendon reflexes were symetrical but diminished and no pathological reflexes were noted. The patient rapidly became less responsive and four hours after admission his blood pressure had risen to 210/130, the pulse had slowed to 100/min. A slight generalized tremor developed in the left upper extremity, the right pupil became slightly dilated with a sluggish light response. Eight hours after admission neurosurgical consultation was requested. At this time the patient was completely comatose, with no response to painful stimuli. The right pupil was completely dilated and did not respond to light, the Babinski reflex was positive on the left side. The blood pressure had slowly risen to 220/140 and the pulse was 92. Surgical intervention was elected.

Dr. Joseph Evans: I think that this case

presents a number of points that will serve to emphasize what has been indicated in the movie. As is so often the case, a valid history was not obtained so one has to work in the dark, particularly when matters are moving along rapidly. At this stage I would remind you that any head injury is a dynamic situation, different from hernia or other static conditions. The situation is a progressive one. Whether or not the history of hypertension bears particularly on this problem I do not know, but one would have to think of the possibility that, as the result of intracerebral hypertensive bleeding, the patient is getting into trouble, but I do not think this is likely. A history of head injury accompanied by loss of consciousness of 15 to 20 minutes presumably sets the stage for what follows on a slower time scale, and I would suspect that this man had some bleeding in the subdural space and that this went on to form a clot in much the fashion that was shown in the movie. For the sake of discussion, we will assume this is the pathologic mechanism going on and we can then approach the problem as it was presented at the stage following his admission. He was sufficiently weak that he was unable to walk. He had an elevated blood pressure which was not particularly significant. The first lead was the fact there was ptosis of the right eyelid. We usually look for pupillary dilatation and think that it is the first sign of trouble, but sometimes there is a subtle ptosis, and I would suspect that was the case here. Another significant point is that the level of consciousness was declining progressively. By the time he was examined, even painful stimuli gave no response. As the movie showed, compression of structures in the midbrain may lead to increasing coma. McGoon and his co-workers have shown that the mechanism that supports consciousness is located in the mid-brain and impairment of the reticular substance is manifested by depression in the level of consciousness. I suppose the patient's systolic murmer had no relation to this problem. His liver enlargement may be a reflection of impairment of circulation or a clue to the use of alcohol. Individuals who are chronic alcoholics are more prone to subdural hematoma. These individuals fall more often; they cannot give you a history, there is a good possibility that their vessels are more fragile, and that their clotting mechanism is disturbed.

During the period of observation of this patient the coma became deeper, the blood pressure higher, and the pulse slower This is a finding which has very real and great physiologic validity. On the other hand, it is exceedingly deceptive because you cannot rely on blood pressure and pulse changes as necessary accompaniments of increased intracranial pressure. When these changes are present they provide a very important lead.

Tremor developed in the left upper extremity. I cannot explain this physiologically. Now we see that the right pupil is becoming dilated and gives a sluggish light response. Eight hours have elapsed since admission and these are eight hours that may be vital for the patient. One must have a real sensitivity to the dynamic nature of intracranial injuries because, if you allow time to pass in which the clot becomes larger, the uncus is displaced further and further against the brain stem, and the stage is then set to produce irreversible changes in the stem. If the surgeon is called late, he may be defeated before he begins.

This patient was comatose and did not respond. His right pupil was dilated. There was a Babinski sign on the left. This latter sign presumably is evidence of compression of the parietal lobe. I would judge that probably the patient's extremities were flaccid throughout and the Babinski would be a sign of involvement of the right parietal lobe. Now his pressure has risen again but in the hypertensive, one must be careful of the interpretation.

I would certainly agree that surgical intervention was indicated. The question would be how one would proceed at the time of consultation. There are some differences of opinion about the best way of handling such a problem. The introduction of the angiogram has changed our concepts. In the old days there was no question but that burr holes would be placed. In every hospital there is a set of rules that warn people of difficulties, and when I was first introduced to the Cincinnati General Hospital, one of the general surgeons gave me the advice that "localization necessitates exploration." The fact is that the appearance of localized signs demands serious consideration of exploration. Before the days of the angiogram,

this meant three burr holes on each side, because subdural hematomas are often bilateral.

In exploration of the subdural space we like to place the occipital region in the head rest, the patient facing up, because this position allows ready exploration of both sides. It is an awkward position in which to operate and it cannot be used if the patient is in shock, but it is a useful way of working and one can handle epidural hematoma as well in this position. Since the introduction of angiography, one oftentimes has a clear idea in advance of what the situation is. But angiography must be used with care. At a neurosurgical meeting last week discussion came up of the use of angiography in head injuries, and several of the men expressed a definite inclination to use exploratory burr holes in preference. Whether the dye interferes with the function of the blood-brain barrier was a point of the discussion. There is some valid evidence that it does and may militate against a patient's recovery, but often it is a very useful test. One must use judgment whether to use it in a particular instance.

In this case I would say one was probably dealing with a subdural hematoma. I presume on the right side, or perhaps bilaterally. One could use angiography or explore directly. If a clot were found, it is quite possible that the patient responded rapidly, and did not present a special nursing problem, but if the clot is present as long as this one was, with the development of such definite signs, one might assume there was some irreversible damage done to the brain stem, because the patient has been comatose for some time. In that event, handling from then on requires exceedingly good nursing care. This is what counts most in the post-operative period in dealing with head injury. It is often difficult to achieve, but the neurosurgeon depends very heavily on the quality and devotion of his nursing staff.

Dr. Boswick: I would like to ask about the interval. Do you think operation could have or should have been performed before these eight hours were up?

Dr. Evans: It is difficult to judge from the protocol what the sequence has been, but I would think that one could have picked this up earlier if the person who saw him initially had a high degree of suspicion. Then perhaps angiography might be called for. Judgment is difficult. The point I would like to make is that one must remember that this is a dynamic physiologic situation and the time allotted to you is variable. If this had been an epidural clot one might have lost the patient after an hour or two.

Dr. Boswick: If this patient had presented without a history of trauma would you consider ruptured aneurysm?

Dr. Evans: Certainly this would have to enter into the differential diagnosis but with a history of trauma, one would consider subdural hematoma rather than aneurysm.

Dr. Boswick: What about the use of spinal tap in making a diagnosis?

Dr. Evans: I think one must disabuse himself of the idea that pressure readings are significant. If you do a lumbar puncture, and if the pressure is increased, one really has information of value. But if the pressure is low it may be that one is dealing with a fair sized clot in a patient with an atrophic brain.

Dr. Boswick: Would you comment on the possible danger of lumbar puncture?

Dr. Evans: I have felt that it is very difficult to judge what the danger of a lumbar puncture is. A good many years ago, we set out to study all lumbar puncture deaths, and there were at that time 10 deaths thought to be related. One patient died while being turned for the puncture. Punctures are often done in crucial situations, and to do them indiscriminately is potentially dangerous. Sometimes when we are in doubt we reserve puncture until the patient is in the operating room, and are ready to proceed with the operation.

Dr. Boswick: In the multiple injury patient how frequently is shock related to head injury?

Dr. Evans: Shock occurs in head injury on a physiological basis very transiently so that we do not see in the hospital a patient in shock as a result of a blow. I think that there may be profound physiologic disturbances with a drop in blood pressure in the first few moments after injury. By the time we see the patient after head injury, if there is evidence of hypotension, it always makes me fearful that there is a hidden injury that we have not found. The exception is the scalp laceration. The scalp vessels are large and one can exsanguinate from them very

quickly. If there is shock, you had better be busy yourself finding a hidden source of bleeding elsewhere.

Dr. Boswick: How important is it to reduce intracranial pressure after you evacuate the clot and what agent do you use?

Dr. Evans: There is sometimes reactive swelling after evacuation. If one is doing an exploration and the brain is very tight, it would be very advantageous to leave it a little extra room. If you cannot do this, and this is a problem one faces when dealing with exploration for subdural hematoma with a badly injured brain, for the brain is tight, then one may have difficulty in arriving at exclusion of epidural, subdural, or intracerebral clot. The agent we would use to shrink the brain at operation would be urea, but we have been disappointed with it in patients who have suffered severe injury. In the postoperative period I do not think urea is very effective. Two weeks ago at a meeting of neurologic surgeons Dr. Lyle French presented a paper on the use of Decadron and he is enthusiastic about its value but I am not convinced yet. I want to see some experimental proof from the laboratory that this is effective because clinical judgment is so difficult in head injuries.

Dr. Boswick: What about the use of hypertonic mannitol?

Dr. Evans: I think it falls in the same group as urea.

Dr. Boswick: What is the mechanism of action in the use of steroids? I have not heard anyone talk about the mode of action.

Dr. Evans: The use of dexamethasone has been referred to, but its mode of action remains obscure.

Dr. Boswick: Just as you predicted, this man had an immediate response. Before he reached the recovery room he was alert and wanted to leave the hospital.

Thank you very much, Dr. Evans, for this very helpful discussion.

For Review

1. Few head injuries are so serious as to be despaired and none so trivial as to be ignored. The history of unconsciousness is an indication for observation.
2. The most common injury is laceration of the scalp. Blood loss may be excessive and contrary to popular opinion they do become infected.
3. Patients sustaining head injuries should have four x-ray views of the skull to answer four questions:
 a. Is there a fracture?
 b. Does the fracture line cross the temporal region (possibly involving the middle meningeal artery)?
 c. Is there a depression?
 d. Is there a lawyer?
4. Fractures of the skull generally require surgical intervention when they implicate the "Rule of C's".
 a. *Compound* — open fractures of the skull including those into the sinuses.
 b. *Centers*—when the depressed area overlies an important center, such as the motor or the visual.
 c. *Centimeter* — In general fractures depressed more than 1 cm. below the normal skull outline should be elevated, regardless of location.
 d. *Convulsions* — depressed skull fractures associated with convulsions should have prompt elevation.
 e. *Cosmetic* — deforming defects in the calvarium should be corrected.
5. The drainage of cerebro-spinal fluid from the nose or ear should be looked for in every head injury. When the fluid is mixed with blood its presence may be suspected by the outer ring of yellowish discoloration surrounding a blood stain on the dressings or sheets.
6. Where a question exists as to whether a watery drainage from the nose is spinal fluid or mucus, the detection of sugar in the fluid using Clinitest® tablets identifies it as cerebro-spinal in origin.
7. The occurrences of cerebro-spinal rhinorrhea or otorrhea indicates a basal skull fracture and necessitates the following management:
 a. Prophylactic antibiotics.
 b. Bed rest to encourage free drainage until it ceases (usually 48 hours).
 c. Avoidance of spinal taps.
 d. Avoid blowing nose or repeated inspection and instrumentation of ear canal.
8. All deep and superficial reflexes should be examined and recorded as well as the response to painful stimuli.
9. Continuous close observation and frequent examinations (10-15 min.) are essential when neurological symptoms are questionable or progressive.
10. Progression of symptoms is the strongest indication for operation, the most reliable being progressive loss of consciousness.

Clinical Evaluation of Bendroflumethiazide in Hypertension and Edematous States

Joseph C. King, M.D., F.A.C.P., *Chicago*

The Development of Chlorothiazide in 1957 made effective oral diuresis feasible[1] and stimulated the search for more potent and effective oral diuretics. Bendroflumethiazide, one of the most potent oral diuretics developed to date,[2,3] has been available for clinical use since 1959. Results with this agent show that 5 mg. produces about the same increase in sodium chloride and urine excretion as do 50 mg. of hydrochlorothiazide;[4,5] a dose of 2.8 mg. is reported to be the equivalent of 2.0 cc. of meralluride administered intramuscularly.[6]

Like the other benzenedisulfonamide derivatives, bendroflumethiazide acts on the proximal renal tubule to prevent reabsorption of sodium chloride, an effect similar to that of the mercurials, which also act at this site.[5,6] Its electrolyte excretion pattern, characterized by marked excretion of sodium and chloride ions, with significantly less effect on the output of potassium and bicarbonate[4,5,7-16] provides a diuresis with less potential for significant disturbance of the electrolyte and acid-base balances of the body. Its action more closely approaches that of the "ideal" diuretic, than does that of others of its type.[4,5] Moreover, its toxicity is extremely low[11,17] and refractoriness to its action has not been observed despite repeated clinical administration.[7,10,12,18-20]

Clinical investigation also documents the fact that in addition to its diuretic properties, this new thiazide possesses antihypertensive merit.[21,22] The following investigation was undertaken to evaluate the clinical efficacy of bendroflumethiazide (Naturetin®)* in both hypertension and edematous states.

Materials and Methods

Forty-four private ambulant patients, ranging in age from 22 to 77 years, were treated with bendroflumethiazide, the series including 24 with hypertension, 16 with edema, and four with both conditions. Of the total group of 44 cases, one patient was diabetic prior to therapy, 19 were obese, six had arteriosclerotic heart disease (ASHD) one had arteriosclerosis, and two others suffered from cardiac decompensation (complicated in one case by angina and asthma). Two patients in this series were hypothyroid, one of these also having parkinsonism. Of the 16 edematous patients, five were cases of premenstrual and menstrual edema (of whom one was hypothyroid), one had edema

*Supplied by the Department of Clinical Research, The Squibb Institute for Medical Research, New Brunswick, New Jersey.

of pregnancy, and seven were cases of edema occurring at the menopause.

Bendroflumethiazide alone or in combination with potassium chloride† was orally self-administered in accordance with the patients' individual prescriptions, in dosages ranging from 2.5 mg. daily to 5 mg. three times daily. Five patients received supplementary medication — reserpine in 3 cases, and a combination of flumethiazide and Rauwolfia in two.

The salt intake of 23 of these patients was restricted in varying degrees. The remaining 21 patients were permitted their usual salt intake.

The results of treatment were recorded at successive office visits and were evaluated according to the following criteria: *excellent* — all symptoms relieved; *good* — 50-75 per cent improvement; *fair* — slight improvement, and *poor* — no effect, treatment with bendroflumethiazide discontinued because of side effects or less efficacy than other medication.

Results

Therapeutic results with bendroflumethiazide in the total number of 44 cases—both hypertension and/or edema — were *excellent* in 30 cases (68.18%); *good* in four cases (9.09%); *fair* in seven cases (15.9%); and *poor* in three cases (6.81%).

In the 24 cases with hypertension alone, results were *excellent* in 17 patients, including the case of pretreatment diabetes; *good* in four; *fair* in two, and *poor* in one. Some of the control blood pressure readings represent findings during previous antihypertensive therapy.

In the 16 cases with edematous conditions alone, the results were equally encouraging, with *excellent* results in nine cases; *fair* response in five patients, and *poor* results in only two cases.

The four patients suffering with both hypertension and edema all experienced complete resolution of their edema and three had an excellent response in hypertension. One of these patients had only slight improvement in hypertensive symptoms.

†Supplied as Naturetin ₵ K.

Side Effects

Only two patients developed side effects serious enough to warrant withdrawal of the medication. One patient, the daughter of a diabetic mother, had had normal fasting blood sugars at least once yearly for the previous five years. After eight months of therapy in this study, she developed clinical symptoms of diabetes and a blood sugar of 190 mg. %. On stopping bendroflumethiazide, the sugar gradually returned to normal. The second patient developed nausea and vomiting. In this case, gastrointestinal upset may have been coincidental, but since the patient refused to resume therapy, this could not be definitely ascertained. Medication was discontinued in a third patient who developed a cerebral thrombosis, which occurred during maintenance of satisfactory blood pressure levels.

Other side effects, reported by four additional patients, were minor and did not interfere with the course of therapy. Included were tiredness and weakness in two patients, and dizziness in two others, one of whom was taking the medication three times a day.

Discussion

The efficacy of bendroflumethiazide, both as an antihypertensive agent and as a diuretic, is undeniable, although its exact mode of action in inducing its effects has not yet been fully disclosed.[5]

In hypertension, experiments have demonstrated an increased sodium and water content in the walls of the aortae of hypertensive rats,[5,23,24] and diuretics have been shown to block some of the action of norepinephrine.[5,6]

Reabsorption of sodium by the renal tubules is widely regarded as a basic factor in the development of edema, regardless of origin,[25-27] although it is generally acknowledged that many factors are involved in the pathogenesis of this state. Consequently, inhibition of sodium reabsorption, either by limiting sodium intake or by increasing its elimination with the use of diuretics, has been the conventional course of therapy.[29]

In the present study with this drug, bendroflumethiazide proved highly effective, with a

minimum of side effects. Only 6 out of 44 patients manifested any side reactions at all and, of these six, only two experienced side effects of sufficient severity that treatment had to be stopped.

Summary

Bendroflumethiazide alone or in combination with potassium chloride, was administered to 44 private ambulant patients, 24 of whom were being treated for hypertension, 16 for edematous conditions, and four for a combination of the two conditions.

Overall results were *excellent* in 30 cases (68.18%); *good* in four (9.09%); *fair* in seven (15.9%), and *poor* in three (6.81%).

Only two of the 44 patients developed side effects serious enough to warrant withdrawal of the drug. In the first ease, the previously normal daughter of a diabetic woman developed diabetes; after withdrawal of the medication, her blood sugar slowly returned to normal. In the second patient, nausea and vomiting occurred, but this may not have been attributable to the medication.

Other side effects, which were minor and did not interfere with the normal course of therapy, included: dizziness in two patients, one of whom was taking the medieation three times a day; and weakness and tiredness reported by two others.

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Ingredients for health Those who advocate more inroads upon our liberty fail to recognize that it is not a mere coincidence that the life span of Americans today is longer than that of the people of any other major nation. It is no accident that there are more than 3,000,000 Americans alive today who would be dead if our national death rate had not been reduced through improved diagnosis and care. These facts are not due to climate, to food, or to public health measures. They are due to the dynamism, the spirit, and the freedom of choice existing today within the field of health care. The three fundamental elements of medicine in this country — the physician, the pharmacist, and the pharmaceutical manufacturer — have worked together in a climate invigorated by the spirit of freedom, and together they have provided medical care unsurpassed anywhere in the world. *Francis C. Brown, President, Schering Corporation, to National Association of Retail Druggists, Oct. 5, 1961.*

The View Box

Franz Gampl, M.D., *Chicago*

This 35-year-old construction worker sought medical advice for a lump at the upper part of his sternum. He first noticed it as a painless swelling one year ago. Since then it has increased in size. It has become moderately painful during the last month. The pain is sharp and stabbing whenever he coughs, sneezes or turns over in bed. He denies any trauma to the area.

The physical examination revealed a bony-hard, nontender ridge, measuring 5 cm. in width and 1 cm. in height at the junction between the manubrium and the body of the sternum (Angle of Louis). No other findings were present. The laboratory results were noncontributory.

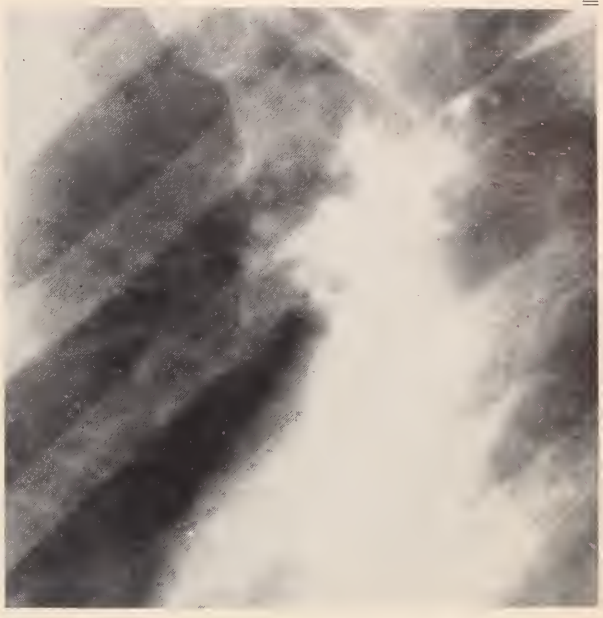


FIGURE 1. Left oblique view of the sternum.



FIGURE 2. Laminographic study at the Angle of Louis.

What is your diagnosis?
1) Myeloma
2) Tuberculosis
3) Degenerative arthritis
4) Chondroma

(continued on next page)

From the radiology department, Cook County Hospital

(continued from preceding page)

The diagnosis is degenerative arthritis of the superior sternal synchondrosis. This was confirmed by surgery which was performed for the removal of the spurs. The patient made an uneventful recovery and was relieved of the pain.

Anatomy: The sternum of the young adult consists of three parts, which are joined together by a superior and inferior synchondrosis. The superior synchondrosis between the manubrium and body of the sternum allows bending and flexing movements during respiration. This synchondrosis remains open until late in life and is subject to inflammatory and degenerative changes comparable to those seen in the large fibrocartilagineous joints between the vertebral bodies of the spine.

Incidence: Isolated degenerative arthritis of the superior sternal synchondrosis is very rare, only 22 cases having been found in the literature.

Etiology: Trauma is probably the most important single factor. This may occur as a single event remembered by the patient, or in the form of repeated insults of which the patient is not aware. Twenty-seven per cent of the patients are young or middle aged males engaged in heavy manual labor.

Roentgen Findings: Unsharpness of the joint forming margins of the bone, marginal sclerosis, formation of spurs, and bridging between the manubrium and body of the sternum are rather characteristic of osteoarthritis. (Figs. 1 and 2). If laminagraphy is not available, the conventional studies of the sternum in oblique and lateral projection are adequate to demonstrate these findings.

Clinical Findings: An indolent swelling over the upper part of the sternum usually precedes the onset of pain. The growth of the process is slow, over a period of months or years. The pain is intermittant, being aggravated by coughing and other acts which cause movement in the synchondrosis. The patient may localize the pain at the sternum rather than deep in the chest. This constitutes a helpful clue for diagnosis. In some patients tenderness may be elicited by pressure over the area.

Differential Diagnosis: Myeloma, osteomyelitis, tuberculosis, Tietze's syndrome, rheumatoid arthritis and benign and malignant tumors must be considered in differential diagnosis. The clinical and radiographic findings serve to exclude coronary heart disease, aneurysm of the ascending aorta, and other intrathoracic lesions.

Treatment: Injections of local anesthetics, diathermia and symptomatic measures may give permanent or temporary relief. In some patients it is necessary to remove the spurs and fuse the joint surgically.

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Etiology of Angina Pectoris

What has emerged from these observations (anger and angina pectoris) is a description of the "Rise and Fall of the Individual." Basically it is the specific mode of the Fall. And it can be added that this, the anginal mode, is a novel addition to our times — heretofore undescribed prior to the 16th and 17th centuries. In the past, frustrations of the nature described would have been handled by outbreaks of personal violences on the offending parties. He could have poisoned, stabbed, or shot his opponents.

However, during the 16th century there was introduced a new set of ethical values which gradually outlawed personal violence by means of moral, social, and legal sanctions. Thus there arose a new form of behavior characterized by the restraint of violence, and the supression of rage — which I believe altered human physiology in such a manner that the disease angina pectoris came into existence. *Samuel J. Kowal, M.D. Anger and Angina Pectoris. AP-DT. August 1961.*



MEDICINE in the OUT-OF-DOORS

Salt and Water

Julius M. Kowalski, M.D., *Princeton*

The old man was beginning to feel faint and occasionally spots danced before his eyes. For six continuous hours he rowed, seeking schools of large bluegills in deep water, on this hot, humid August day. Being an old-timer, he knew that to drift or troll was the best way of getting sizeable fish during the doldrums of midsummer. A variable breeze wafted over the lake now and then, but as quickly died down; so, back to the oars again. The twitching in his arms became annoying. Just one more try outside the long bar extending far into the lake, he thought to himself as he exerted more pressure on the oars. The thumping of his heart became pronounced and a headache developed quickly. Intermittent painful cramps ensued in the muscles of his arms and abdomen. He was sick to his stomach and soaked from sweat. This was enough; he pulled a slow meandering course to the boat dock. The bane of many summertime physical activities performed under hot and humid conditions had struck the old man — heat exhaustion and heat cramps.

Those living in warm areas are responsive to the incipient symptoms of this thermal stress, as are persons in industrial pursuits where above normal temperatures and humidities prevail. But people who encounter such environment only on occasion and then for short intervals, need to be warned. The dire consequence of prolonged exposure to heat, even though activity be moderate, and especially in the elderly, is heat stroke. Its onset is sudden — the patient's skin is hot and dry and the body temperature is 105° F. or higher. Prompt heroic measures must be exercised to reduce body temperatures in this emergency or the patient will die.

The primary constituents in the body fluids of all vertebrates are salt and water. They are the dominant skein in 400 million years of evolutionary development from the primordial sea. The internal environment could not be preserved were it not for the kidney — the conserver of salt and excreter of fluid. Under normal circumstances in the healthy individual, dietary privations even under temporary work loads are well tolerated despite some discomfort. The average adult then requires about 1 liter of water in addition to his usual solid and semi-solid foods to maintain hydration. (For practical purposes, this amounts to 4 glassfuls of 8 oz. capacity.) The daily salt requirement of 10-12 Grams is easily replenished in the well-balanced diet. Several additional glasses of water and a little more salt on the food on the day of increased physical activity compensates for the slightly larger loss of these components.

However, radical departures from the norm bring on equally unusual physiologic adjustments. Copious sweating is the mechanism through which body temperature is maintained within normal limits while one is engaged in heavy work in the presence of abnormal heat and humidity. Under such conditions, a burst of violent activity will produce 2 liters of sweat per hour and sustained labor can result in a secretion of 12 liters in 24 hours. This is an enormous amount of fluid to be lost through the skin alone. The concomitant salt loss can be as

much as 3 Grams per liter. Profuse perspiration for several hours can entirely deplete the usual daily intake of this essential electrolyte.

Foundry workers, miners and others who do hard work much of the time under excessive temperatures need no urging to take additional water and salt. How does this relate to a water skiing buff? He is in and on the water for several hours. The brecze is cooling to his body as he skims behind the tow-boat. And occasionally, he rests on the dock or takes a hand at running the boat to reciprocate for his companions. The same elements are operative here as in a foundry — work, sweat, and in addition, the effect of wind and sun which accelerate dehydration. He is a possible heat exhaustion and heat cramp victim unless salt and water are replaced. The same holds true for the beach lounger desiccating himself on the sand even though he cools himself now and then by dipping in the lake. The golfer, too, on a hot day expends energy in an environment akin to the foundry worker. Or, consider the man returned from a two week vacation to find his lawn approaching the hayfield stage. Grabbing the mower, he goes at the grass with a vengence to complete the task before the rapidly developing summer squall hits. In several hours, he will lose a half gallon of water and one-half of his daily salt requirement through his skin.

Somehow people do not consider recreational pursuits as work; these are pleasurable, partaken of infrequently, and therefore, fun. But the energy expended remains work.

The treatment in all instances is simple. Replenish the salt and water. Salt tablets are available in all pharmacies and most food stores. One tablet dissolved in an 8 oz. glass of water makes a 0.2 per cent salt solution. This solution is palatable and well tolerated by most individuals and does not have the emetic effect of many earlier prescribed salt solutions. If tablets are unavailable, essentially the same concentration can be made by using one teaspoonful (or slightly less) of table salt per glass of water. By taking either of these solutions, one is replacing the salt which is lost through the skin since sweat normally varies from 0.2 per cent to 0.5 per cent in salt. Three such glassfuls will partially compensate for the salt and water loss resulting from several hours of moderate activity on a hot day.

Congenital Cataract

When one knows that a congenital cataract is becoming an impediment to visual acuity, a debatable question arises: "When should it be operated upon?" Here authors are not in complete agreement. According to a statistical report by Papapanos and Schenk on the results of operation for cataract during the first ten years of life, children with congenital cataract due to fetal iridocyclitis have little vision after the operation, which should therefore not be performed until the child is 4 or 5 years old. In cases of total congenital cataract of both eyes, without inflammatory processes, and in cases of incomplete cataract with severe involvement of both eyes, operation should be performed during the first year of life; otherwise, as has been pointed out by Chandler, nystagmus will appear owing to the lack of proper visual acuity. When only one eye is affected by a dense cataract, amblyopia is bound to result in that eye even if this eye is operated on, since, as a rule, neither the child nor his parents will tolerate occlusion of the good eye long enough for the visual acuity of the surgically treated eye to increase significantly. In borderline cases, with moderate involvement of both lenses, it is best to wait and see how the child gets along. Again, it is best not to consider operation for some time, at least, when a child with bilateral dense central opacities can still obtain useful vision simply by having the pupils dilated. In cases of partial cataract it is best to wait for surgical intervention until the fourth or fifth year of life.

In general, one should keep in mind that operations done on children under 2 years of age give inferior results because of the incidence of complications. The parents of a child with congenital cataract, therefore should be told about the dangers and pitfalls of surgical treatment and the limited results to be expected. *Arthur R. Labelle, M.D., Treatment of Congenital Cataract. J. Internat. Coll. Surgeons. May 1961.*

Delayed Postoperative Effects of Antihypertensive Therapy

Ivan Zahony, M.D., Alon P. Winnie, M.D.,
and Vincent J. Collins, M.D., *Chicago*

Introduction

Most anesthesiologists are in agreement that for the safe conduct of elective surgical and anesthetic procedures the discontinuance of certain antihypertensive and tranquilizer drugs is advisable prior to elective surgery. However, there is considerable difference of opinion concerning the proper duration of drug withdrawal. Crandell[1] recommends 10-14 days in the case of Rauwolfia derivatives and 4 days with chlorothiazide therapy. Smessaert and Hicks[2] suggest at least 10 days for the Rauwolfia group. Ziegler and Lovette[3] reported three cases illustrating the value of a waiting period of 2 weeks after stopping reserpine. Coakley and others[4] feel that Rauwolfia treatment should be withheld for two weeks before operation. Freedman and Benton[5] reported that more than 5 weeks is required to restore blood serotonin levels in man after a single 10 mg. oral dose of reserpine, indicating long persistence of at least some of the drug's effects.

The following case report illustrates that if certain postoperative conditions exist there might be delayed consequences of earlier antihypertensive treatment:

This article was developed from notes of a recent Cook County Hospital Anesthesia Conference.

Case Report

This is the case of a 46-year-old colored female who entered Cook County Hospital on April 25, 1962, with a three year history of intermittent right upper quadrant pain aggravated by ingestion of fatty foods. She also had a 6 month history of hypertension, for which she was receiving 250 mg. of chlorothiazide and 0.125 mg. of reserpine (Diupres®) taken twice daily. She had no symptoms indicative of any other systemic disease.

On admission this patient had a blood pressure of 160/90 mm.Hg, a regular pulse of 72 per minute and a respiratory rate of 16 per minute. Physical examination revealed an extremely obese negro female in no acute distress. The only positive physical finding was a grade ii systolic murmur present over the entire precordium, but loudest over the aortic area. No antihypertensive treatment was administered after admission.

Laboratory workup included a hemoglobin of 14.1 Grams (hematocrit of 41%) and a urinalysis that was negative. The fasting blood sugar was 76 mg./100 ml.; blood urea nitrogen 20 mg./100 ml.; total protein 7.5 Gm./100 ml.; alkaline phosphatase 3.1 Bodansky units, icteric index 10 units, cephalin flocculation 0, thymol turbidity 1.0 unit, and gamma globulin turbidity 1.14 Gm./100 ml. Electroyltes drawn 5 days

after admission showed a sodium of 133 mEq. L., chloride of 106 mEq. L. and potassium of 4.4 mEq. L., with a CO_2 combining power of 56 Vol.% (25.2 mEq./L.). The electrocardiogram was read as left ventricular hypertrophy, while chest films showed both heart and lungs to be normal. Graham-Cole studies revealed cholelithiasis, the upper G-I series being negative.

The patient was scheduled for cholecystectomy on May 7, 12 days after admission, in accordance with our rule that Rauwolfia derivatives must be discontinued at least 10 days, chlorothiazide at least 4 days prior to elective surgery. However, on the day of the contemplated surgery the patient developed pneumonia, and subsequently a left pleural effusion, both of which responded to antibiotics and repeated thoracentescs.

On May 30, 35 days after admission, the patient was premedicated with morphine sulfate 8 mg. and atropine sulfate 0.5 mg., and was sent to the operating room, where she arrived with a blood pressure of 150/75 mm. Hg and pulse of 88 per minute. Induction of anesthesia was accomplished with 200 mg. of 2.5% thiopental (Pentothal Sodium®) and 50% cyclopropane and 50% oxygen; following an intravenous dose of succinylcholine chloride 40 mg., the patient was ventilated with 100% oxygen and easily intubated with 8 mm. I D endotracheal tube. Anesthesia was maintained with cyclopropane and oxygen and relaxation, when needed, with a 0.2% succinylcholine chloride drip. Except for a single episode of reflex hypotension, which promptly responded to an intravenous dose of atropine sulfate 0.25 mg., the anesthetic and surgical courses were uneventful. The cholecystectomy was accomplished with minimal blood loss, and the patient left the operating room awake, with a bleed pressure of 160/100 mm. Hg and pulse of 110 per minute.

For the first 4 hours postoperatively the pressure remained at between 140 and 150/80 mm. Hg. Then the pressure began to drop, reaching levels as low as 70/50 mm. Hg 8 hours postoperatively. Metaraminol bitartrate (Aramine®) 0.01% was begun, and anesthesia consultation was called. Since the patient had been on antihypertensive therapy prior to surgery, even though such therapy had been discontinued the recommended period of time preoperatively, it was felt that the mechanism of the hypotension which was now persistent, and resistant to routine therapy, might be secondary to reserpine, chlorothiazide, or both. Thus serum electrolyes were drawn and 80 mEq. of potassium and 154 mEq. of sodium were given along with intravenous methyl prednisolone hemisuccinate (Solu-Medrol®) 40 mg. followed by 40 mg. t.i.d. Within 24 hours, the patient was "weaned" from vasopressor agents and made an uneventful recovery. The effect of the above treatment on the serum electrolytes is presented in Figure 1.

FIGURE 1.

Date	Cl^- mEq./L.	K^+ mEq./L.	Na^+ mEq./L.	CO_2 Combining Power Vol.% mEq./L.
4-30-62 — pre-op	106	4.4	133	56 Vol.% 25.2 mEq./L.
6-1-62 — 10 hours post-op but prior to treatment	85	3.7	136	56 Vol.% 25.2 mEq./L.
6-2-62	93	4.1	144	71 Vol.% 31.9 mEq./L.
6-5-62	94	3.8	133	63 Vol.% 28.2 mEq./L.
6-8-62	106	4.0	139	

Discussion

Before discussing the mechanisms by which the two drugs used in this case interfere with hemodynamic adjustments to the stress of anesthesia and surgery, we should emphasize that this delayed postoperative hypotension most likely would not have developed if the patient had not lost about 280 mEq. of sodium, 80 mEq. of potassium, and 350 mEq. of chloride[6] via gastrointestinal and urinary drainage.

We feel that three factors were involved in the production of this postoperative hypotension: 1) The above mentioned postoperative electrolyte loss; 2) the possibly slight but definitely pre-existing intracellular sodium and potassium depletion, which resulted from the preoperative chlorothiazide therapy; and 3) the somewhat diminished catechol amine content of postganglionic sympathetic nerve endings, a result of the preoperative administration of reserpine.

As Crandell[1] points out, not only the availability of catechol amines but also the vascular reactivity to these catechol amines will determine how well the homeostatic mechanisms of a patient will adjust to stress. This cardiovascular reactivity is diminished if the cationic content (potassium and sodium) of the peripheral vascular wall and of the myocardial fibers is decreased.[7,8] A certain level of circulating corticosteroids for peripheral tissue utilization is also necessary to maintain a satisfactory vascular response.[9]

Considering the two drugs administered preoperatively important pharmological effects are to be noted in the present situation. Reserpine and other Rauwolfia alkaloids deplete catechol amine stores centrally from the hypothalamic centers and peripherally from the postganglionic sympathetic nerve endings in the myocardium, peripheral vascular bed, and adrenal medulla.[10,11] The result is diminished arteriolar vasoconstrictive responsiveness and decreased myocardial contractile force and heart rate under stress. Interference with vasomotion, and vascular reactivity to catechol amines in the peripheral vascular bed will result in decreased venous return which will further reduce cardiac output.

Chlorothiazide and its congeners also produce a diminished pressor response to stress, but do so by depleting the potassium and sodium content in the peripheral vascular wall.[7,8]

In the case report presented above both drugs were discontinued on admission, and because of the development of pneumonia 35 days elapsed between the last dose of Diupres® and the day of surgery. This waiting period is far more than that suggested in the literature. However, the present status of our knowledge is insufficient to definitely state the time necessary for full replenishment of the catechol amine stores and of the potassium and sodium content of the blood vessel walls. Therefore, partially replenished stores, which usually are able to maintain hemodynamic equilibrium, may result in an "unstable" homeostatic mechanism; the superimposed postoperative electrolyte loss via the gastrointestinal and urinary tracts upset these protective mechanisms, resulting in hypotension almost 8 hours after surgery, when the uncorrected electrolyte loss reached a significant level.

As shown in Figure 1, the preoperative serum potassium level is within normal limits, though sodium is somewhat reduced. Bland[12] and others have shown that the extracellular potassium concentration may be normal in spite of a low intracellular content, and in fact this is the situation which we feel existed even in the preoperative period. Postoperatively, with the massive electrolyte loss, the extracellular level also dropped to abnormal levels, and it must be remembered that this drop reflects an even greater loss in the intracellular compartment, which attempts to maintain extracellular levels. The rise in the serum level of both cations on 6-2-62 is a result of the intravenous replacement of these electrolytes as stated in the case report. The decrease in the serum sodium and potassium concentration over the next 3 days, in spite of normal oral intake, must be interpreted as being secondary to the electrolyte shift which attempts to replace the depleted intracellular stores. Following such replacement, the extracellular levels gradually returned to normal (6-8-62).

Worthy of mention is the role of corticosteroids in vascular reactivity. As stated earlier, a certain level of circulating corticosteroids for peripheral tissue utilization is necessary to maintain a satisfactory vascular response to stress.[9]

In choosing a steroid to enhance this response to stress in the surgical patient the goal is to utilize an analogue which has the greatest "anti-stress" property with the least effect on intracellular electrolyte balance. At the present time of the available preparations, methyl prednisolone sodium hemisuccinate (Solu-Medrol®)* best achieves this goal. The advantages of this analogue are: 1) its anti-stress effect is five times that of hydrocortisone[14] and three times that of prednisolone;[13,14] 2) it results in neither sodium retention nor increased potassium excretion;[13] 3) methyl prednisolone is less extensively bound to plasma albumin and diffuses more completely into the tissues than does hydrocortisone;[14] and 4) the biological half life of methyl prednisolone is almost twice that of

*The Upjohn Company, Kalamazoo, Michigan.

hydrocortisone and 30% greater than that of prednisolone.[15,16]

We feel that in this case the administration of methyl prednisolone enhanced this patient's somewhat diminished ability to respond to stress *without* adding to her pre-existent electrolyte imbalance, as hydrocortisone might.

Summary

Certain effects of antihypertensive agents may persist beyond the usually accepted duration of preoperative withdrawal. Thus, depressed catechol amine levels and intra-and-extra-cellular electrolyte imbalance may markedly diminish a patient's ability to respond to the stress of anesthesia and surgery. A case report is presented to illustrate how such a situation may arise, and how it may be corrected by *early* electrolyte replacement and supportive therapy with the proper corticosteroid.

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The Handicapped in Business

According to the Office of Vocational Rehabilitation, the success factors of a small business operated by a handicapped person are in order of importance: managerial ability, emotional stability, aggressiveness, maturity, community reputation, and reliability. Disabled operators are more likely to succeed if they have a financial stake of their own in the enterprise. To guard against failure, the government agency believes that the rehabilitated worker should set a practical goal of $200 a month as a minimum net income. Also, the evaluation of personality traits of the prospective operator should receive greater emphasis than his age, formal education, severity of the physical disability, and business location.

The conclusions were collected from a three-year project involving investigation and assessment of the records of 150 owners of businesses in northern Alabama. There were 110 persons who were set up in business by the State Vocational Rehabilitation Service. Only 10 per cent of these received any form of preparatory training before placement. Approximately 43 per cent failed.

The remaining 40 handicapped persons were trained, placed in business, and supervised after placement. Only 22 per cent of this group failed. They concluded that the number of failures of small businesses operated by the disabled could be reduced substantially through careful evaluation, training preceding placement, and supervision by an expert counselor. Natch!

Unexplained Hemorrhage in the Late Postpartum Period

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The Statement Has Been Made "Though the healthy obstetric patient is usually considered beyond threat to life and health after the first few days of puerperium, she and her physician are at times unpleasantly surprised, some days or even weeks later, by the ocurrence of profuse bleeding which may be of sufficient quantity to constitute an acute emergency, requiring hospitalization and active therapy."[1]

The incidence of late postpartum bleeding is not rare; some estimate that 10 per cent of all puerperal patients experience excessive bleeding after they leave the hospital. Although most of these cases will clear up spontaneously and hence cannot be classified as true hemorrhage, others persist and worsen. Because the bleedings occur late, the patient is predisposed to far greater hazards than when hemorrhage occurs immediately after delivery.[2,3]

Classification of Postpartum Hemorrhage

Immediate — occurs while the patient is still on the delivery table.

Early — this term is used if hemorrhage occurs within the first 24 hours after delivery. Recognition is often made by personnel other than the physician present at the time of delivery, and thus active treatment is sometimes likely to be postponed until the severity of the bleeding becomes apparent.

From a paper presented at the 15th Annual Meeting of the Illinois Obstetrical and Gynecological Society, Chicago, May 14, 1962.

Delayed — occurs days or even weeks after the patient leaves the hospital, often without apparent cause. The sources and treatment of this type of hemorrhage are outlined in the following:

Sources of Hemorrhage

Placental Site — Bleeding from the placental site is a part of the hemorrhage picture; however, its significance has at times not been appreciated. It has been referred to as non-involution of the placental site.[1]

A review of the American literature since 1900 reveals several references of the placental site as a common or major source of late hemorrhage. One states[2] "A description of the placental site states that it is characterized by a large number of vessels and a small area of myometrium and that immediately after delivery of the placenta these vessels are filled with fluid and clotted blood and compressed by the contraction of the myometrium. Approximately 24 hours later both arteries and veins are undergoing thrombotic changes. In addition to this, the arteries also undergo obliteration. Fibrous tissue which is present in the vessel walls then swells and the cell outline is lost and the vessel's seem to be surrounded by a hyaline band. Occasionally this will not involve the entire circumference and the reduction in lumen grows gradually less as one proceeds from the placental area along the main arterial trunks. Complete obliteration of the

larger branches is rather rare. In the veins the thrombus is invaded by fibroblasts but little organization is seen in the superficial portion of the thrombus. The deeper vessels are all but obliterated by fibrous tissue, and with the progression of the puerperium some of the superficial portions of the placental site will undergo a necrosis and then slough. By the eighth day the site has become considerably compressed and the endometrial tissue by this time extends beneath the site and by the twelfth day, it is supposedly well established. The endometrium may also extend over the surface of the site and partially cover it. Thus by the seventeenth day, the endometrium is gradually underlining the placental site which at this point appears as a polypoid projection in the endometrial cavity and it rapidly becomes compressed and disappears by about the seventh week. Exfoliation has taken place and the material is extruded. But this exfoliation does not occur at once, it may extend over a period of weeks. As a result of this process, the placental site is repaired with a minimal scarring and thus does not interfere with any future reproductive function."[2,4]

Retained products — The second source of hemorrhage can be the retained products which can consist of either a retained cotyledon or a retained portion of membrane. However, as a rule these patients will usually express these products at a later period during the puerperium.[2,5]

Subinvolution of the uterus — The third source of bleeding can be subinvolution of the uterus itself and this means failure of the uterus to return to its normal size within the usual period of time. This is a relatively common condition and is better known as a basis for late excessive bleeding than for profuse hemorrhage. Various other conditions including retained products, inflamatory reaction in the presence of tumor masses such as leiomyoma have been considered as a cause of subinvolution, as have other clinical factors such as the lack of proper rest and early ambulation.[2]

Review of Cases

In a series of seven cases seen by the author, the cause of bleeding was considered to be due to subinvolution of the placental site. All of the patients in this series were white, age range 16-32, and all but two were multiparas. Five of these cases were treated by surgery while the two remaining responded to conservative measures. The usual operative procedure that was followed in the cases that required definitive intervention consisted of digital exploration of the uterine cavity, removal of any free lying fragments by either digital separation or with the ovum forceps. This was usually followed by a very light curettage after the administration of oxytocin (Pitocin®) to contract the myometrium with the insertion of a uterine pack which was removed after 24-48 hours.

Reviewing the literature one author stated that 27 cases of late hemorrhage in his series were classified as severe.[1] Bedrest and oxytoxics had been employed in all cases in an effort to control the bleeding. These measures were successful in twelve cases. In one of these, a placental fragment was expelled spontaneously on the 7th day postpartum. Bleeding continued in spite of these measures and required operative intervention, e.g., curettage and packing, in fifteen cases.

It is interesting to note that in author's series of seven cases, it is almost axiomatic that once heavy bleeding had started, it continued with frequent episodes of rather profuse hemorrhage until either the uterus was evacuated and definite therapy was instituted, whether it be packing or hysterectomy. In the above reviewed series of 27 cases, it was found that the onset of significant bleeding was fairly evenly distributed from the 4th to 15th days postpartum.[6] Pain was not a prominent symptom and a rise in temperature was usually absent.[7] With this, the author can concur. In every instance in the reviewed series, it has been shown that the uterus was enlarged and sometimes considerably distended by clots, and the cervix was usually patulous. Shock was present, either minimal or moderate in degree. Blood transfusion was required in all of the cases being presented today. In none of the author's cases was there any definite evidence of uterine pathology except that which was referred to as subinvolution of the placental site. This is unusual, in that all of these cases occurred in the hospital within a relatively short space of time.

Blood loss at time of delivery was minimal to moderate and severe in the author's series.

It is concluded that the placenta was intact and there were no missing cotyledons. All of the patients received the usual oxytoxics following delivery. At pelvic examination the presence of the dilated cervix did not appear to be peculiar to any one type of bleeding and a consistently enlarged uterus was the most common finding. As mentioned previously, the uterus was filled with clots in all cases.

Therapy

The therapy in most of the cases was of three types:

1. Conservative and watchful waiting with blood replacement
2. Dilatation and curettage with uterine packing
3. Abdominal hysterectomy[8]

In most of the cases a considerable amount of blood was used. In fact, the patient's entire blood circulatory content was replaced practically several times in a few instances.

Pathology

In all of the author's seven cases, the only pathology that could be ascertained was that of subinvolution of the placental site, post partum uterine atony, and one case of retained decidual fragments. The tissue consisted in most instances of decidual debris. Only one case clearly demonstrated afribrinogenemia as an associated cause for hemorrhage.

Summary

Delayed postpartum hemorrhage may be defined as hemorrhage occurring after the patient has left the hospital in apparently good condition with the uterus in a state of normal involution. In the author's series of seven cases, all of the patients were relatively young; five were multiparas and two primiparas. One case demonstrated clear-cut evidence of a deficit in the blood clotting mechanism namely afibrinogenemia with minimal retentions of decidial fragments. In one other case, later study (after delivery and after definitive surgery had been performed) brought out evidence of a possible plasma protein deficit.

The majority of cases in the author's series required definitive surgery to eliminate the source of bleeding. There were no details and all patients responded well to the treatment given.

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Hospital Care

Not infrequently, people are said to be unsuitable for admission to hospital for the very reasons that cry out for a period of full hospital care — e.g., patients with pressure sores, and patients much more disabled than need be from residual hemiplegias, or rheumatoid arthritis, or osteoarthritis. Many hemiplegics and arthritics can be managed effectively in their own homes, but many others need a radical and continuous (though temporary, and sometimes periodic) change of environment to bring about any appreciable improvement. In these cases, and many like them, one has to consider, amongst other things, disorders of behaviour, problems of personality, over-solicitude of relatives, domination and binding through illness, erroneous concepts of disease and age, and failure of morale.

Many patients with cerebral thrombosis, and many with mental confusion (alone, or complicating broncho-pneumonia or congestive failure), come into the first category, and many into the second, but they are often denied admission to the best-staffed and best-equipped hospitals (the hospitals they need) on the grounds that they are unsuitable. These patients have consequently to be managed in hospitals with the most serious inadequacies of staff and equipment. *F. Allen Binks, M.D. The Functions of a Hospital. Lancet. May 26, 1962.*

Intussusception Due to Henoch-Schönlein Purpura

Case Reports and Review of the Literature

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As Early As 1808 Willan[1] described the occurrence of abdominal pain in association with purpura. Henoch,[2] in 1874, published his famous report emphasizing abdominal pain as the main symptom of the disease and since then abdominal purpura has become associated with his name. At present, the disease is most commonly referred to as acute vascular purpura or anaphylactoid purpura.[3]

Intussusception is a rare complication of acute vascular purpura. The first case was described in 1893 by Vierhuff[4] and reviewed in 1947 by Wolfsohn;[5] 35 cases have been reported to date. The incidence of intussusception following Henoch-Schönlein purpura is probably far more common than the number of reported cases would indicate. The frequent occurrence of purpura and the fatal outcome if the intussusception is not promptly diagnosed, make it obligatory to suspect the complication as soon as any symptoms appear.

Two cases of acute vascular purpura complicated by intussusception have occurred at Mount Sinai Hospital, Chicago, since 1957. In both cases an early diagnoses saved the patient's life.

Case Reports

Case I. A nine-year-old white female was admitted to the hospital on March 7, 1957, with a history of acute tonsillitis 16 days prior to admission. She had been treated for 5 days with sulfadiazine instead of penicillin, to which she was allergic. Five days before admission the patient had complained of pain in both ankles, severe abdominal pain, and several episodes of vomiting. The sulfadiazine was stopped, since she was believed to be having an allergic reaction to the drug, and she was started on tetracycline (Achromycin®). The following day the patient developed diarrhea and one passage was mixed with dark stool. The abdominal pain increased in intensity and became colicky in character for the following three days. On the day of admission, petechiae appeared on her lower and upper extremities, and she had one defecation mixed with fresh blood. A diagnosis of Henoch-Schönlein purpura was made on admission.

A blood count showed a white cell count of 14,750 — 78% neutrophils, 12% lymphocytes; hematocrit, 37% hemogoblin, 12.3 gm./100 cc; red blood cells, 4.3 million/mm;[6] and normal platelet count. The clotting and bleeding times, and the Rumpel-Leede test were normal. The urine showed a profusion of red blood cells.

Physical examination revealed an acutely ill girl, mildly dehydrated, complaining of a localized pain in the lower part of the abdomen. There were fading petechiae on the upper and lower extremities. The abdomen was soft and tender below the umbilicus, but without any revealing mass. A rectal examination revealed fresh blood on the glove with tenderness bilaterally. She was given intravenous fluids and antibiotics.

The following day severe colicky pain reappeared with many bouts of vomiting. The stool contained large amounts of fresh blood. Plain films of the abdomen revealed definite evidence of bowel obstruction, despite the absence of abdominal distention or a palpable mass.

An exploratory operation revealed an ileo-ileal intussusception, 22 inches in length with a zone of gangrenous bowel. Resection was done and an end-to-end anastomosis was performed. The patient withstood the operation well and the postoperative course was uneventful. The patient was discharged in good condition 11 days postoperatively.

The pathologic examination of the resected segment showed 25 cm. of small intestine having softened walls and dark black zones. Microscopic examination showed considerable interstitial hemorrhage in the submucosa, muscularis, and serosal layers. The veins were markedly

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congested, and perivascular infiltrations of polymorphic neutrophils were noted.

Case II. A five-year-old white female was admitted to the hospital on October 17, 1960. For two weeks prior to admission she had had an upper respiratory infection. Four days later, she experienced for a period of five days severe episodes of vomiting accompanied by severe abdominal cramps and watery, but not bloody, diarrhea lasting for a period of three days. Four days prior to admission she was treated by her private physician with neomycin and a penicillin injection. Two days later the patient developed a petechial, purpuric and ecchymotic rash on her buttock and lower extremities. The abdominal pain and vomiting that had subsided for a couple of days reappeared. There was no history of joint pain or hematuria, or incidences of allergy or sensitivity to drugs.

On admission, the physical examination revealed an acutely ill child, somewhat lethargic and pale, complaining of severe abdominal pain. The pulse was 90/min.; respiration 26/min.; and the temeprature 99° F. The skin revealed purpuric lesions 1 to 4 mm. in diameter on the buttock and lower extremities; there were no fine petechial lesions. The Rumpel-Leede test was negative. There was a zone of tenderness in the right lumbar region and one observer thought that a sausage-like mass measuring 2 x 2 cm., firm and movable, could be palpated. There was no distention, visible peristalsis, or rigidity of abdominal wall. The bowel sounds were somewhat increased. Rectal examination did not reveal blood, a mass or tenderness. A diagnosis of Henoch-Schönlein purpura was made.

Laboratory tests revealed a hemoglobin of 12.6 gm./100 cc.; hematocrit, 40; white cell count, 21,650 — 94% neutrophils, 6% lymphocytes; the platelets were adequate; bleeding time (Duke's Method) 2½ minutes; clotting time (L. W.) 5 minutes. The urine was free of blood. A flat film of the abdomen was inconclusive.

Conservative treatment employing intravenous fluids and tetracycline was instituted.

On the following day the patient had severe diarrhea mixed with fresh blood. The abdominal pain increased in intensity, and she continued to be irritable. An examination of the abdomen revealed tenderness in the right lower quadrant and the presence of a mass. The child was taken to surgery a day and a half after admission. An ileo-ileocecal transverse colon intussusception was found beginning 10 inches from the ileocecal valve. The terminal 8 to 10 inches of ileum showed marked venous congestion of the serosa, and the mesenteric lymph nodes were somewhat enlarged.

The intussusception was reduced by gentle squeezing of the leading loop of the gut, and an appendectomy was also performed.

Five days post-operatively there was a recurrence of purpura on the dorsum of the left foot, left shoulder and inner thigh, accompanied by severe abdominal pain and a small amount of rectal bleeding. A barium enema was performed but did not reveal any abnormalities. The patient was discharged ten days postoperatively in good condition and free of symptoms.

Discussion

The fundamental lesion of acute anaphylactoid purpura is necrosis of the walls of small blood vessels, and perivasculitis.[3,7] The infiltrate around the vessels consists mostly of polymorphonuclear and mononuclear cells with a minimal amount of eosinophils. These changes are mostly present in the skin, joints, gastrointestinal tract and kidney. The glomerular lesion consists of focal areas of endothelial hypercellularity and focal capillary thrombosis by fibrinoid material.[3] The cutaneous manifestations seldom involve the trunk, and occur chiefly on the extensor surfaces of the limbs. They are deep purple, variable in size, do not blanch on pressure and may be urticarial and coalescent. They are, therefore, unlike the lesions found in idiopathic thrombocytopenic purpura.[8,9]

Although the clinical picture of acute anaphylactoid purpura is usually diagnostic, consisting of abdominal complaints, purpura, joint manifestations and hematuria, difficulties sometimes arise in differentiating it from acute rheumatic fever, acute glomerulonephritis, polyarthritis and lupus erythematosus. Anaphylactoid purpura may occur at any age, but affects children mostly. Males are more frequently affected than females.[8,9] Abdominal complaints occur in a third of children under two years of age, and in three-fourths of children over two years of age; they are rather frequent in older children.[8,9]

Intussusception as a complication of this disease has never been described in a child under the age of two. This is in contrast to intussusception due to other causes which is commonly seen under the age of two years. In some cases abdominal complaints may be present prior to the purpura by a period of several days or even weeks.[8,9] The abdominal pain is often colicky and associated with vomiting. Melena or bleeding is sometimes present, occasionally profuse, and may produce shock, but generally is occult and sparse. This symptom is chiefly due to the bleeding into the intestinal wall. When this bleeding becomes very severe, increased peristalsis caused by intestinal hematoma results in intestinal invagination. It is interesting to notice that both cases described were females and both had colicky pain and vomiting prior to the appearance of the rash.

Table 1

Review of the Literature of Intussusception Following Henoch-Schönlein Purpura

Author	Sex and Age	Joint Symptoms	Purpura	Vomiting	Blood Per Rectum	Hematuria	Mass	Site of Intussusception	Treatment	Results and Remarks
Vierhuff[4] (1893)	M 29 yrs.				+			Ileocecal.	No operation.	Intussuscepted piece of bowel passed per rectum. Recovery.
Lett[14] (1906)	M 3 yrs.	+	+	0	+	0	R. Loin	Ileocecal.	Reduced. No operation.	Recurrence of intussusception three days after reduction of first. Died.
Hall[16] (1908)	M 5 yrs.	+	+	+	0	0	0	Ileo-ileal.	Resection.	Died.
Döbeli[25] (1908)	M 8 yrs.	+	+	0	+	+	Left hypochrondrium at intervals.	? Sigmoid colon.	Enemas of glycerine and oil.	Recovered. Frequent relapses of intestinal obstruction, purpura, and intestinal masses. Presence of intussusception not proved.
Sutherland[24] (1909)	F 7 yrs.	0	+	+ with blood	+	+	0	Ileocecal.	No operation.	Died. General peritonitis at necropsy.
Morse & Stone[26] (1909)	F 7 yrs.	+	+	+	+	0	R.I.F.	Ileo-colic.	Reduction.	Recovery. Recurrence of vomiting, purpura, intestinal bleeding. At laparotomy, nothing abnormal.
Collinson[27] (1910)	M 4 yrs.	+	+	+	0	0	0	Ileo-ileal.	Insertion of Paul's tubes.	Resection 3 days after preliminary operation. Recovery.
Tonking[28] (1910)	M 5½ yrs.	+	+	+	0		Above umbilicus.	Ileo-ileal.	Reduction.	Recovery.
Robinson[29]	M 5 yrs.	+	+	0	+		Below umbilicus.	Ileo-ileal.	Reduction and resection.	Affected bowel also resected because of mesenteric thrombosis and gangrene. Recovery.
McKecknie[30] (1911)	M 10 yrs.	0	+	+	+	+	Right of umbilicus.	Ileo-ileal.	Reduction.	Died several months later from nephritis.
Gara[31] (1912)	M 5 yrs.	0	+	+	+ after enema	+	Right of umbilicus. Not felt afterwards.	Ileocecal.	No operation.	Died.
Lederer[19] (1913)	M 12 yrs.	+	+	+	+	0	0	?	Necrotic piece of intussuscepted intestine passed 5½ weeks after onset of symptoms. Recovered.	
Barling[32] (1913)	M 4 yrs.	0	+	+	+		Epigastric	Ileo-colic.	Resection.	Recovered.

Table 1 (continued)

Review of the Literature of Intussusception Following Henoch-Schönlein Purpura

Author	Sex and Age	Joint Symptoms	Purpura	Vomiting	Blood Per Rectum	Hematuria	Mass	Site of Intussusception	Treatment	Results and Remarks
de Lavergne & Guillemin[33] (1927)	M 21 yrs.	0	+	+	+	0	0	Ileo-ileal.	Resection.	Died.
Caizergues[34] (1929)	F 3 yrs.							Ileo-ileal.	Reduction.	Recovered.
Ballin & Morse[35] (1930)	M 31 yrs.	+	+	+	+		Right of umbilicus.	Ileocecal.	Reduction.	Death 3½ months later from haematuria, nephritis, purpura. At autopsy many subperitoneal hemorrhages leading to ulceration, perforation, and peritonitis.
Comby[12] (1932)	M 25 yrs.		+	+				Ileocecal.	No operation.	Abdominal distention. Visible intestine through skin. Fecal vomiting. Severe abdominal pain. Death.
Gamstedt[36] (1933)	F 7 yrs.	0	+	+	0	0		Ileo-ileal.	Resection.	Recovery.
Gray[37] (1936)	M 21 yrs.	+	+	+	+		+	Ileocecal.	Reduction.	Recovery. Six days after reduction once more developed signs of intestinal obstruction. At operation kinking of terminal ileum over gangrenous patch in cecum. Lateral anastomosis performed.
Huber et al.[18] (1939)	F 8 yrs.	+	+	+	+		0	Ileo-ileal.	No operation.	Death.
Schwartzman[22]	M 3 yrs.	0	+	+	+	0	Indefinite.	Ileocecal.	Resection.	Died day after operation. Family history of allergy.
Wolfsohn[5] (1947)	M 4 yrs.	+	+	+	0	0	R.I.F.	Ileo-ileal.	Resection.	Recovery.
Benson & Martmer[15] (1949)	M 3 yrs.	+	+	+	+		0	Ileo-ileal.	Surgery and resection.	Recovery. Abdominal distention. Localized peritonitis. X-rays indicate obstruction of the ileum.

TABLE 1 (concluded)

Review of the Literature of Intussusception Following Henoch-Schönlein Purpura

AUTHOR	SEX AND AGE	JOINT SYMPTOMS	PURPURA	VOMITING	BLOOD PER RECTUM	HEMATURIA	MASS	SITE OF INTUSSUSCEPTION	TREATMENT	RESULTS AND REMARKS
Herrera Romero[17] (1950)	M 2½ yrs.	0	+	+	+		0	Ileo-ileal.	Reduced. Resected. Re-resected. Barium enema.	Living.
Balf[38] (1951)	M 8½ yrs.	+	+	+	+		+	Colic intussusception	Surgery.	Clear fluid in abdominal cavity.
Guilleminet & Schnepp[39] (1957) Case I	M 6½ yrs.	0	+					Ileocolic. Ileocolic again		Self-reduction.
Guilleminet & Schnepp Case II	F 6½ yrs.	0	+	+		+	+	Ileo-ileal.	Surgery and resection.	Barium enema negative before operation. Flat film — obstruction. Resection due to gangrene — 40 cm.
Steinhardt & Jonas[40] (1957)	F 5 yrs.	+	+	+	+	+		Ileo-ileal.	Surgery and resection.	Two-day shock and abdominal distention. X-rays flat film — ileus — obstruction. Recovered.
Basu[21] (1959)	M 4½ yrs.	0	+			?	+	Ileo-ileal.	I. Reduction in surgery. II. Resection gangrenous bowel.	Five days post-operative; peritonitis. Second operation. Perforation of bowel, proximal to point of intussusception.
Allen, et al.[8] (4 cases) (1960)	2-M 2-F average age under 6 yrs.	0	+		+			Ileocolic.		All colicky pain. I died — 12 hrs. unexpected ileocolic. In 2 — resection — one ileocolic — one ileo-ileal. One reduced by itself although x-ray evidence of intussusception.
Söderlund[41] (1960) Case I	M 3 yrs.	0	+	+	+			Ileocolic.	Surgery, reduction, and resection.	X-ray revealed obstruction, distended abdomen. Abdomen contained fluid. Survived.
Söderlund Case II	M 8 yrs. 4 mos.	0	+	+	+	+	+	Ileo-lial.	Surgery and resection.	X-rays not informative — then abdominal distention, rigidity, mass disappeared. X-rays — small bowel obstruction. 3 days after symptoms — blood in peritoneum. Survived.

In the first case these symptoms were accompanied by diarrhea and a clinical picture simulating gastroenteritis. In the second case, joint symptoms accompanied the abdominal pain and there was vomiting simulating rheumatic fever.

We are aware of the great difficulties to determine the presence of intussusception at bedside. Symptoms of anaphylactoid purpura and intussusception are similar. There are times when purpura, vomiting, colicky abdominal pain and even rectal bleeding are present, also with guarding and a palpable mass and no intussusception is found at operation.[6,10-14] Similarly, gangrenous intussusception can be found in the absence of a palpable mass.[1,15-20]

In our first case, colicky abdominal pain, vomiting and fresh blood in stool were present and although no mass was palpable intussusception was found at operation. In our second case, abdominal pain, vomiting, and a palpable mass were present and intussusception was found at operation.

If an early diagnosis cannot be established and operation is delayed, the possibility of intestinal gangrene, perforation,[5,21] and peritonitis with fatal outcome may supervene. This is confirmed by the literature (see Table 1), which shows that of 24 cases operated on, the diagnosis was made so late in 16 that a resection had to be performed. The early practice of not operating unless a tumor mass is palpable has been completely discredited by the cummulative data which definitely advocates immediate surgical intervention when there is a suspicion of intussusception.[5,15,22]

Flat films, although not conclusive, are very valuable aids in differentiating between the two possible diagnoses of anaphylactoid purpura and intussusception. Whenever an intestinal obstruction is present immediate operation is always indicated. This was shown in our first case. A barium enema in addition to the flat film may be diagnostic and even therapeutic. The barium enema has proven effective in reducing ileocolic, ileo-ileocolic and colic-colic intussusception;[23,24] but the majority of the cases from the literature had ileo-ileal intussusception where surgery is preferable to barium enema.

Surgery is still indicated despite the risks involved in the presence of purpura. It behooves the physician to use roentgenologic examination of the abdomen when the symptoms of abdominal pain, vomiting and purpura are present with or without a palpable mass.

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Feeding Demonstration Project Utilizing Survival Biscuits

Edward A. Piszczek, M.D., M.P.H., Frederick Plotke, M.D., M.P.H., and Herbert J. Neumayer, M.A., *Chicago*

In The Event of a Nuclear Explosion, the need to spend an extended period of time in a fallout shelter will be inescapable. Danger of radiation exposure and restricted quarters make the formulation of basic survival diets necessary. These diets must be palatable and must have a long shelf-life, in addition to providing minimum daily caloric and fluid requirements.

A demonstration project was undertaken to evaluate the acceptability of a recently formulated survival biscuit[1]* by volunteers and the effects of this dietary regime on these volunteers over a period of two weeks. The survival biscuit is composed of wheat flour, cane sugar, salt, leavening, corn flour, corn sugar, cottonseed oil shortening, soya flour, butylated hydroxyanisole, propyl gallate, citric acid in propylene glycol, and added vitamin B_1; it contains 7.8% protein, 8.3% fat, 80% carbohydrate, and 1.0% sodium chloride. The vitamin and mineral assay per 66 biscuits (approximately 2,000 calories) is:

Thiamin	1.0 mg.
Riboflavin	0.5 mg.
Niacin	4.0 mg.
Sodium Chloride	4.5 gm.
Calcium	150 mg.
Phosphorus	450 mg.
Magnesium	13.5 mg.

From the Illinois Department of Mental Health and Stritch School of Medicine, Loyola University, Chicago, Illinois.

*Supplied by the National Biscuit Company.

General Procedure

Volunteer prisoners from the Stateville Penitentiary, Joliet, Illinois, who were honor-bound to abide by the dietary restrictions, were used in this project. Each prisoner was provided daily with 66 biscuits and 2 quarts of water flavored with orange crystals or in the form of instant coffee. The fluids provided are sufficient to meet minimum physiological needs with a safety margin of one quart.[1]

Of the 47 prisoners who volunteered to participate in this project, 36 completed the study. Of these 36, one was 19 years old, 16 were 20-29, 14 were 30-39, 4 were 40-49, and one was 50. Eleven men did not complete the two-week period on a survival diet. Of these eleven, four dropped out after the second day, two after the third day and three after the fourth day. The remaining two were lost to the study because of transfer or illness (common cold). Of those who dropped out, three were 20-29 years old and two each were in 30-39, 40-49, and 50-59 year age groups.

Results

During the initial period complaints such as headaches and feelings of hunger pangs, normal reactions to any food reduction regimen, were noted in almost all of the volunteers. It was during this period that the dropouts occurred. The fluid provided the volunteers was apparently sufficient as indicated on their daily reports. Only one complained of having too little to drink. The orange drink which contained corn sugar, citric acid, tricalcium phosphate, saccharine and vitamin C was rejected

after two days in favor of instant coffee or plain water.

The volunteers complained of the hardness of the biscuits, which they said caused sore mouth and tooth trouble. These difficulties were overcome by soaking or dunking the biscuits in liquid. The diet was deemed filling by all except one man, who stated that he could eat more biscuits. The palatability of the biscuits decreased over the feeding period. Only five men considered them still good after two weeks, while to the rest they had become distasteful.

Weight loss under this regimen over two weeks ranged from 2 to 10.75 pounds with an average loss of 6.4 pounds. This variance may be due to different degrees of dehydration and differences in age or body size.

This diet is evidently constipating, since only three of the 36 participants had daily bowel movements. Nine of them did not have bowel movements for as long as five consecutive days.

Conclusions

1. The specially-prepared survival biscuits tested and rations of two quarts of water per day can sustain a person under survival conditions for a two-week period without any visible harm to his health.

2. The survival biscuits used in this study were hard to consume without dunking. If they could be softened to graham cracker consistency and flavored with a greater variety, their acceptability would be enhanced.

3. A variety of drink choices might make the consumption of the survival food more pleasant.

4. The constipating effect of the biscuits might be considered a distinct advantage to counteract the nervous or bacterial diarrheas one can presume will occur under actual conditions of sheltered life.

Summary

A study of the effect of a survival diet was conducted on a group of 36 volunteers. This diet was adequate and few ill effects were noted. Most volunteer complaints centered around the palatability of the hard biscuits and the liquid vehicle. Thirty-three of the 36 volunteers became constipated to varying degrees and all suffered some weight loss.

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The authors wish to express their gratitude to Warden Frank J. Pate of Statesville Penitentiary, Joliet, for his generous cooperation and help during the course of this study.

Early Treatment of Primary TB

A positive tuberculin reaction in any child under four years of age, whether of "recent" origin or not, is an indication for antimicrobial therapy. In children over four years of age, when the date of conversion of the tuberculin reaction is unknown and there is no other evidence of tuberculosis, antimicrobial therapy is presently not considered mandatory; the treatment in such cases must be on a discretionary basis, with careful consideration given to personal and family factors, as well as to the magnitude of the tuberculin reaction before a decision to administer antimicrobial therapy. It is thought that the larger the initial tuberculin reaction, the greater the risk that active tuberculous disease will develop.

Next, one must consider the management of the child over four years of age with a known, recent appearance of a positive tuberculin reaction — that is, a child whose tuberculin reaction was negative last month, or at most, 12 months ago, and is now positive. Should one treat such a child? Before concluding that a recent tuberculin conversion is an indication for antimicrobial therapy, one must determine the risk without antimicrobial therapy; the influence of therapy on this risk; and the untoward effects of the therapy itself. *Charles V. Pryles, M.D. Treatment of the Child with Recent Conversion of the Tuberculin Test to Positive. The New England J. Med. May 24, 1962.*



Editorials

The Price of Tranquility

Many German women have paid heavily for tranquility during the past four years. Phocomelia, ordinarily a rare congenital malformation, began to appear in Germany in epidemic proportions during 1960 and 1961. The finger of suspicion pointed to a new drug (Thalidomide) that had become Germany's most popular sleeping tablet and tranquilizer. Subsequent studies showed that at least eight out of ten of the mothers of affected babies had taken the drug during pregnancy. It was obtainable without prescription until its relationship to phocomelia was suspected. It was withdrawn from the market first in Germany, and then in England, Australia, and Canada. Thalidomide was not used in the United States because the FDA doubted its safety resulting from reports of polyneuritis and adverse effects during pregnancy.

It has been estimated that by August there will be 3,500 babies born in Germany with phocomelia and several hundred born in the other countries mentioned. The serious aspect centers about the type of malformation which in its severe form is enough to make the most hardened physician wince. These boys and girls come into the world with small arms and legs. In the severe cases the appendages are functionless nubbins. Some have no external ears and malformation of the gastrointestinal organs are noted.

New drugs always present problems but the pregnant woman should be extremely cautious about the use of any new substance regardless of its apparent harmlessness. This is particularly true of products taken to relieve conditions of little concern. Many women took Thalidomide before they knew they were pregnant at a time when it is likely to do the greatest harm to the rapidly growing fetus.

Drug Addiction Among Physicians

An extensive review on the professional hazards of narcotics was published recently by Lundy and McQuillen.[1] It is estimated that one out of every 100 physicians in the U.S. has been or is addicted to narcotics in contrast to one in 3,000 among the general population. In other words it is 30 times more prevalent among physicians than laymen. This is not a pleasant thought but understandable considering our constant exposure to drugs and the nature of our work. Physicians are aware of the sedative action of drugs that are readily available to them.

What drives the physician to take that first shot? Some seek relief for irregular hours and loss of sleep. Others suffer from recurring attacks of pain caused by chronic diseases such as arthritis or kidney stones. They do not wish to bother a colleague during the night and administer the narcotic to themselves. A third group includes physicians who are heavy drinkers, or alcoholics. They need a drug to allay the distress of a hangover or to stop the jitters. Demerol is used frequently because it is more readily available and there is less stigma

to its usage. Furthermore, it is believed to be less toxic and the signs of addiction and of withdrawal are less evident.

Lundy and McQuillen quote Pescor as saying that there are 17 ways in which the physician addict differs from other addicts: 1) "The average age of the physician addict is 52 in contrast to 39 for the ordinary addict; 2) He is a voluntary patient rather than a prisoner; 3) He began using drugs at the age of 39 instead of 27; 4) He began using drugs for the relief of a painful or distressing physical condition in contrast to simple curiosity and association; 5) He confined himself to the use of morphine instead of using many narcotic drugs; 6) He has been an addict for 13 years in contrast to 10 years; 7) He has made at least three attempts at voluntary cure while the ordinary addict has made none; 8) He remained abstinent for 32 months after his most successful treatment, in contrast to 24 months for the ordinary addict; 9) He relapsed for medical reasons or through alcoholism instead of through association with other addicts; 10) The physician addict was arrested for the first time at the average age of 45, the ordinary addict at the average age of 28; 11) His parents were in comfortable circumstances in contrast to marginal; 12) He has a college education, whereas the ordinary addict has an eighth-grade education; 13) He comes from a small city or rural section rather than a large metropolitan area; 14) He was able to sufficiently support himself and his habit in contrast to the average addict who had to supplement his income through illegal methods; 15) He is happily married and has two children, whereas the ordinary addict is divorced and has no children; 16) He has a mental age of 16 years, the ordinary addict has a mental age of 13 years 8 months; 17) Upon release he has his practice to look forward to while the ordinary addict has no prospect of employment."

Follow up studies show that 50 per cent of physicians who have been out of the institution for six months or longer were still not using drugs and 27 per cent had relapsed.

The authors quote Gilbert H. Marquardt on the best suggestion for prevention: "I have for many years forbidden the use of narcotics on any of the medical or paramedical personnel admitted to my service.

"I am sure that the many frustrations and severe fatigue episodes associated with medical practice account for the frequency of addiction in these people."

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Oral Contraceptives

The oral contraceptives continue on their controversial way despite the fact that there are few serious side-reactions and they are almost 100 per cent effective. Most of the objections are in the realm of conjecture and center about its use over a long period of time. Will it affect future fertility?. Will it injure the uterus, ovary, pituitary, or adrenal glands? Is it carcinogenic? To date there is no evidence to support these potential hazards.

Several mass studies have been conducted during the past six years and the failures can be attributed to misunderstanding or forgetfulness on the part of the patient. Side-effects have been encountered. Thirteen cases of thrombophlebitis of the pelvic organs or lower extremities (with three deaths from pulmonary embolism) have been reported. These could be coincidental considering the number of women using this type of prophylaxis. Some women develop nausea and vomiting as an immediate side-reaction. This side-effect usually disappears with continued use of the drug, especially when taken after the evening meal or along with an antacid. One in four cannot tolerate the steroid.

Menstrual irregularities may confuse the patient but they need not do so if she follows instructions to the letter. An occasional masculinization of female infants has been reported but in these cases the contraceptive has been used to prevent abortion.

Some oral contraceptives are a combination of progestin and estrogen. Enovid (Searle) is the original product and represents a mixture of 5 mg. norethynodrel and 0.075 mg. ethinylestradiol 3-methyl ether. Other products and modifications also are available or in the offing. They are used for 20 days in each menstrual cycle. Subsequent fertility has not been impaired in that 100 births have been reported among previous users of Enovid.

SENATE VOTE ON MEDICARE

For the Motion to Table (52)

DEMOCRATS — Byrd (Va.), Eastland (Miss.), Ellender (La.), Ervin (N.C.), Fulbright (Ark.), Hayden (Ariz.), Hill (Ala.), Holland (Fla.), Jordan (N.C.), Kerr (Okla.), Long (La.), McClellan (Ark.), Monroney (Okla.), Randolph (W. Va.), Robertson (Va.), Russell (Ga.), Smathers (Fla.), Sparkman (Ala.), Stennis (Miss.), Talmadge (Ga.), Thurmond (S.C.).

REPUBLICANS — Aiken (Vt.), Allott (Colo.), Beall (Md.), Bennett (Utah), Boggs, (Del.), Bottum (S.D.), Bush (Conn.), Butler (Md.), Capehart (Ind.), Carlson (Kas.), Cotton (N.H.), Curtis (Neb.), Dirksen (Ill.), Dworshak (Idaho), Fong (Hawaii), Goldwater (Ariz.), Hickenlooper (Ia.), Hruska (Neb.), Miller (Ia.), Morton (Ky.), Mundt (S.D.), Murphy (N.H.), Pearson (Kas.), Prouty (Vt.), Saltonstall (Mass.), Scott (Pa.), Mrs. Smith (Me.), Tower (Tex.), Wiley (Wis.), Williams (Del.), Young (N.D.).

Against Tabling (48)

DEMOCRATS — Anderson (N.M.), Bartlett (Alaska), Bible (Nev.), Burdick (N.D.), Byrd (W. Va.), Cannon (Nev.), Carroll (Colo.), Chavez (N.M.), Church (Idaho), Clark (Pa.), Dodd (Conn.), Douglas (Ill.), Engle (Cal.), Gore (Tenn.), Gruening (Alaska), Hart (Mich.), Hartke (Ind.), Hickey (Wyo.), Humphrey (Minn.), Jackson (Wash.), Johnston (S.C.), Kefauver (Tenn.), Lausche (Ohio), Long (Mo.), Long (Hawaii), Magnuson (Wash.), Mansfield (Mont.), McCarthy (Minn.), McGee (Wyo.), McNamara (Mich.), Metcalf (Mont.), Morse (Ore.), Moss (Utah), Muskie (Me.), Mrs. Neuberger (Ore.), Pastore (R.I.), Pell (R.I.), Proxmire (Wis.), Smith (Mass.), Symington (Mo.), Williams (N.J.), Yarborough (Tex.), Young (Ohio.).

REPUBLICANS — Case (N.J.), Cooper (Ky.), Javits (N.Y.), Keating (N.Y.), Kuchel (Cal.).

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Profusion of Confusion

We receive an average of five to eight news releases a day from medical societies, universities, hospitals, foundations, fund-raising groups, pharmaceutical companies, government publishers, and from individuals, including a few physicians. These releases are used mainly for promotional purposes and to keep the news media informed about incidents that might be of interest to the public.

Confusion occurs when competing groups send in releases on divergent ideas and opinions. The controversy between the tobacco industry and the Cancer Society is perhaps the best example. The cholesterol controversy is almost as bad. Last month we received the following release; "Only one product—soybean oil—could possibly satisfy the demands that a health-conscious world hungry for polyunsaturated fats is likely to make if and when medical science established a link between blood cholesterol and heart disease." A week later we read "Drugs to replace diet as cholesterol treatment, researchers predict."

It is obvious what happens when the dairy industry or the manufacturers of corn or safflower oil read these announcements. The PR departments are called to prepare new and different releases to add to the confusion.

Meanwhile we find in a release from the AMA that the Council on Foods and Nutrition opposes the sale and distribution of candy and soft drinks in school lunchrooms. The American Dental Association also comes out with the suggestion that the government put a sales tax on sweets to finance dental research. And not to be outdone the Candy, Chocolate and Confectionary Institute sent out a relsease telling of their research with truck drivers. They are trying to determine the effectiveness of candy in combating driver fatigue, a recognized major cause of road accidents. This makes sense in that the truck drivers will be encouraged to take candy from the kids as a substitute for amphetamine. If it works we can expect a new set of releases promoting the use of amphetamine for something else in order to make up for the loss of sales along the highway. Many pharmaceutical companies are going into the veterinary field and they might find new uses for the amphetamines, such as keeping watch dogs awake.

Ames Company had something to say about sweets in the other end of the line. They reported the results of an English diabetic detection drive that appeared in the British Medical Journal. A postal survey of 5,843 persons disclosed 192 cases of glycosuria. Further testing revealed 38 known and 35 newly discovered cases of diabetes. Ames was interested in this report because **Clinistix** was used in making the test.

Some news releases bring good news. Pfizer recently announced a reduction in the price of **Terramycin** and other broad spectrum antibiotics. Metropolitan Life sent us a release stating that the average life for America's wage earners and their families reached an all-time high to 70.8 years in 1961. This is the seventh year in succession in which the expectation of life at birth has been at least the Biblical three score and ten. The American College of Radiology found also that the amount of radiation to the reproductive organs of Americans from medical uses of x-rays was a third to a sixth less than earlier estimates.

Alphadrol, Upjohn's new steroid, was reported to have given few side effects when administered to allergic patients. Sterling Winthrop's new hormone was reported in a release to put weight on children and elderly people. The drug belongs to a new class of hormones called heterocyclic steroids and has almost no masculinizing effects.

New York City has contracted with Wyeth Laboratories to maintain a five million-dose stockpile of a new-type packaged small pox vaccine. This will be the largest stored supply of small pox vaccine in the nation and is enough to immunize everyone in New York City if a small pox epidemic should break out. Wyeth will be permitted to sell portions of the stock pile to other companies so long as they replenish the standby supply with fresh vaccine.

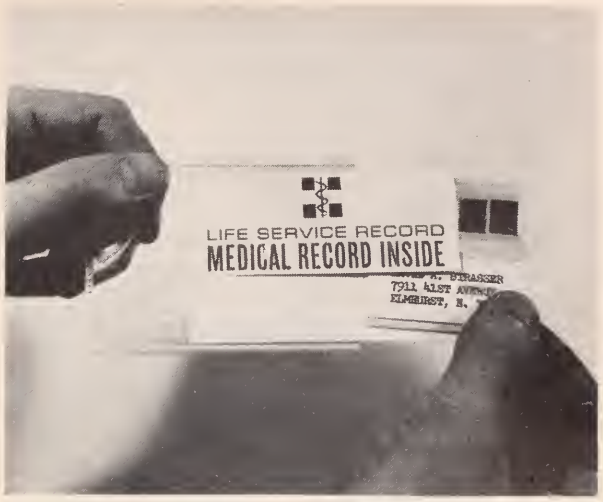
The United States Patent Office issued a certificate of trademark registration to Eli Lilly and Company on the distinctive parabolic end shape of its dry-filled capsules (**Pulvules**). Fewer than half a dozen trademarks for configuration have been granted and the Lilly capsule now joins the Coca Cola bottle and its selected society.

A new brand of ultra-fine griseofulvin particles was reported recently. These will be available as **Gristactin** (Ayerst) and **Fulvicin-U/F (Schering).**

What's New



GENERAL FILMS, INC., has a new polyethylene slipper that covers the entire foot. It is designed to be worn by office and hospital patients in treatment, therapy and examination rooms. They are economical when purchased in bulk quantity.



LIFE SERVICE RECORD is a new medical identification card that is small enough to fit in the wallet. It contains up to four pages of medical data, including electrocardiogram, that is reduced to microfilm.

A new concept in post graduate medical education is produced by Loma Linda University School of Medicine. It consists of a tape recorded lecture that the physician hears and sees in color. Each lecture is prepared by an authority from a leading medical center. Each sound film strip is composed of 60 to 100 pictures and is used on one of several types of projectors. Details of operations and procedures are easily examined on the screen. For more information write Film Distributors International, 2223 S. Olive Street, Los Angeles 7, California.

A toothpaste formula named Thermodent, contains a low concentration of formaldehyde which precipitates into an insulating film on the teeth. This film is said to cover exposed dentin and reduce sensitivity brought on by hot foods, acid fruits, iced beverages and condiments. Painful sensitive teeth are common in people with gum recession, tooth erosion, abrasion and other forms of periodontal deterioration. The material is applied with a soft nylon toothbrush.

According to a news release from Bell Aerosystems Company, cardiologists will find their new electronic stethoscope of exceptional value in detecting and studying abnormal heart sounds. The highly versatile instrument enables physicians for the first time to eliminate by advance electronic techniques all unwanted portions of the heartbeat cycle and bring into focus only the heart sounds they want to hear. This is welcome news to some, but your editor

has all he can do to understand what he hears with an ordinary stethoscope. In his cardiac hayday there were electric stethoscopes but we never knew the significance of murmurs that had to be magnified to be heard. Furthermore it was not the unwanted portions of the heart beat cycle that distorted the sound; it was the breath sounds, rumblings from the abdomen and noise that originated in the chest wall.

A six pound colorimeter, capable of trace analysis down to one part per billion, was announced recently by Technician Controls, Inc.

Sno-Co is the new liquid deodorant for preventing organic odors. According to the Snowden Chemical Co. it is especially designed to eliminate the age old hospital problem associated with bed pans, bathrooms, drainage and carcinoma odors.

Where There's Smoke

The following item in Medical News is worth noting. "When cigarette smoke is inhaled and held in the lungs for half a minute, better than 95 per cent of the smoke particles are retained in the respiratory tract, according to a study conducted at the Batelle Memorial Institute, Columbus, Ohio."

Why Children Poison Themselves

It is little wonder, according to the American Medical Association, that 600,000 children manage to poison themselves each year. There are 250,000 products for use in the home which contain one form of poison or another. It is an inborn curiosity rather than taste that leads the child to sample anything and everything.

Plaudits for Fluoridation

According to Frederick J. Stare, chairman of the department of nutrition at Harvard School of Public Health, fluoridation is one of the truly great advances of this generation. "Any time one can reduce the incidence of a disease by 50 per cent or more, by a procedure that is completely safe for everyone, regardless of age, sex or state of health, and at a cost averaging only ten cents a person per year — this is a great contribution and a bargain as well."

Blue Cross—Centenarians and Criticisms

At the present time there are at least 22 members of Blue Cross who are 100 years of age or older. The oldest member is from Connecticut and was 105 this February 7. He has been a Blue Cross subscriber for the past two years. There is also a married couple from Tulsa. Both are 102 years old. There are seven 103 year olds, six are 101 and five are 102.

The Life Insurance Association of America was critical of the present Blue Cross full cost reimbursement formulas. A spokesman said hospitals lose money under the full cost principle because of the way this cost is ordinarily defined in total and because of the way the total is divided up. The most important item is the loss almost every non-profit hospital has on charity patients and on welfare patients whose care is only partially paid for by some unit of the government. Cash-paying people (often covered by indemnity insurance) are charged 25 per cent above actual cost to make up a 50 per cent deficit in indigents.

This is a major problem in many hospitals, especially in Chicago, where private institutions are not always reimbursed for the care of the indigent. It is obvious also why the Life Insurance Association is complaining. They want Blue Cross subscription to absorb some of their cost. It is their opinion that "the present Blue Cross system is unfair to hospitals and that the voluntary insurance movement cannot long remain financially stable with such built-in discrimination."

Bigger 'n Better

A recent survey disclosed a tremendous growth in practical nursing. In 1950 there were 150 approved schools and 662 in 1960. The number of licensed practical nurses has increased from 64,831 in 1950 to 245,000 in 1960. The field now attracts students both younger and better educated than it did formerly. Three-fourths of the practical nursing programs operating in 1960 were under the control of educational institutions or agencies, usually state or local boards of education as part of the public vocational education programs.

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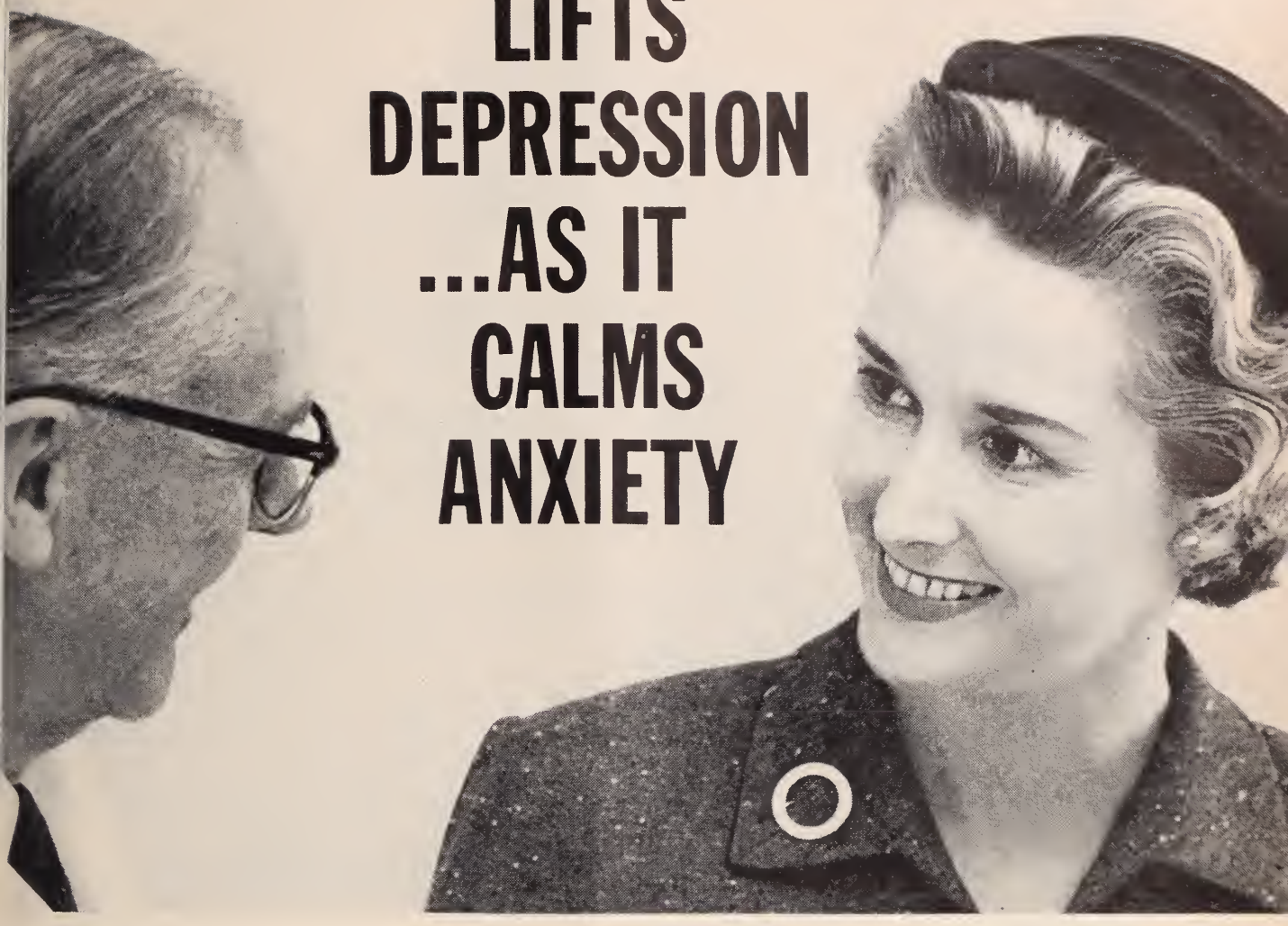
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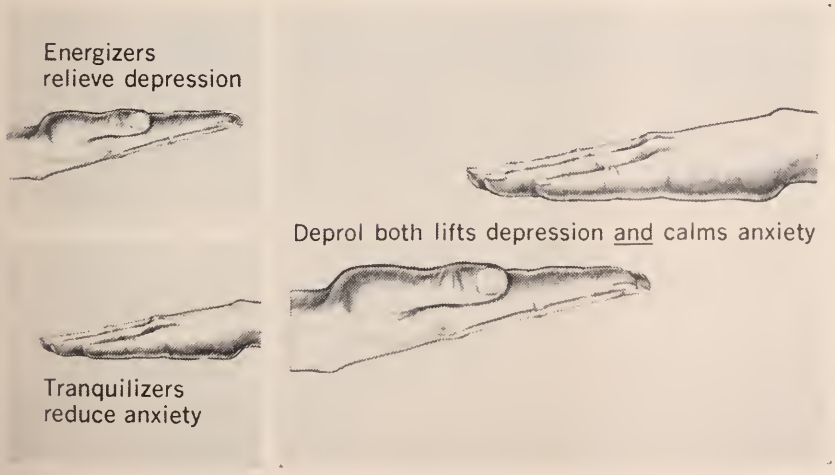
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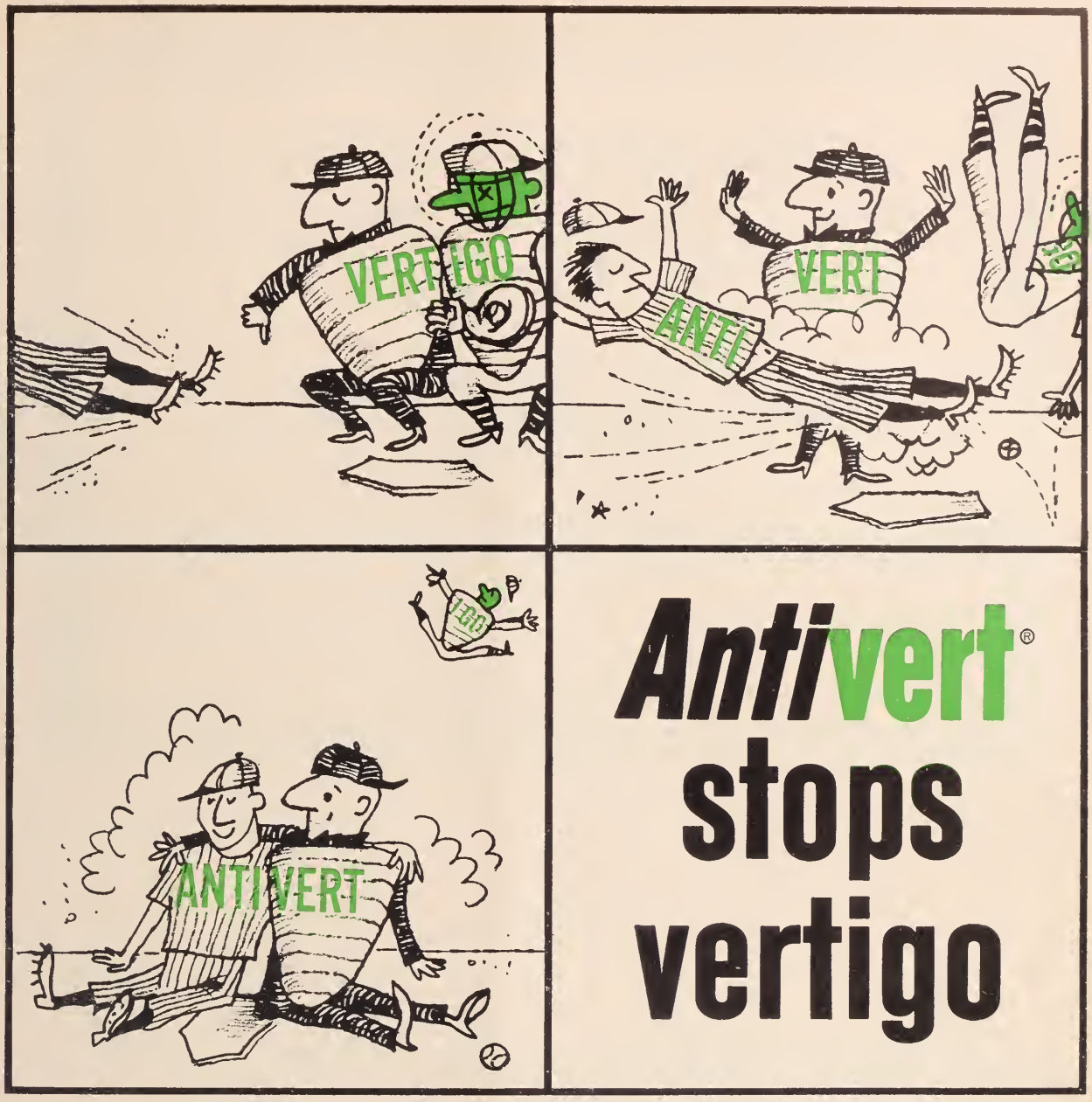
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Dosage: One ANTIVERT tablet (or 1-2 teaspoonfuls ANTIVERT syrup) three times daily, before each meal. **Supplied:** Small blue-and-white scored tablets (meclizine HCl 12.5 mg. and nicotinic acid 50 mg.) in bottles of 100. Syrup (each 5 cc. teaspoonful contains meclizine HCl 6.25 mg. and nicotinic acid 25 mg.) in pint bottles. Prescription only. Bibliography available on request.

*Scal, J. C.: Eye Ear Nose & Throat Month. **38**:738 (Sept.) 1959.

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When arthritis afflicts the elderly, it often poses a critical problem in the choice of an effective antiarthritic that will not aggravate other common geriatric conditions . . . such as osteoporosis, hypertension, edema, hyperglycemia, peptic ulcer, renal, cardiac or hepatic damage, latent chronic infection, or emotional instability.

Pabalate-SF, the geriatric antiarthritic, is specially indicated for such patients.

As Ford and Blanchard have reported,[1] Pabalate-SF has "a pronounced antirheumatic effect in the majority of patients with degenerative joint diseases." It produces "a more uniformly sustained [salicylate blood] level for prolonged analgesia and, therefore, is superior to aspirin in the treatment of chronic rheumatic disorders."

Yet Pabalate-SF is marked by distinctive **safety factors:** its potassium salts cannot contribute to sodium retention . . . its enteric coating assures gastric tolerance . . . and its clinical record reflects none of the serious reactions frequently precipitated by therapy with corticosteroids or pyrazolone derivatives. It has **no contraindications except personal idiosyncrasy.**

1. Ford, R. A. and Blanchard, K. Journal Lancet 78:185, 1958.

Formula: In each persian-rose enteric coated tablet: potassium salicylate 0.3 Gm., potassium para-aminobenzoate 0.3 Gm., ascorbic acid 50.0 mg.

Also available:
PABALATE, when sodium salts are permissible.
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Orinase Case History

Orinase dosage



Mr. B. B., a 61-year-old stockbroker, was put on Orinase almost six years ago. On insulin, he had been imperfectly controlled, irritable, and "used to get overly depressed." On Orinase, 1 Gm. per day, control is smooth and Mr. B. is again his former lively self. He regularly works at home well into the night, preparing for the next day's trading.



An active man, Mr. B. occasionally exercises at the gym. He follows baseball with enthusiasm, likes a friendly game of cards, and often goes visiting the various members of his close-knit family.



Mr. B., intensely involved in his profession, describes his day as a "continual crisis." Under the stress of representing clients in the face of market fluctuations his Orinase needs also fluctuate. Guided by his physician, Mr. B. adjusts his dosage between 1 and 2 Gm. daily.

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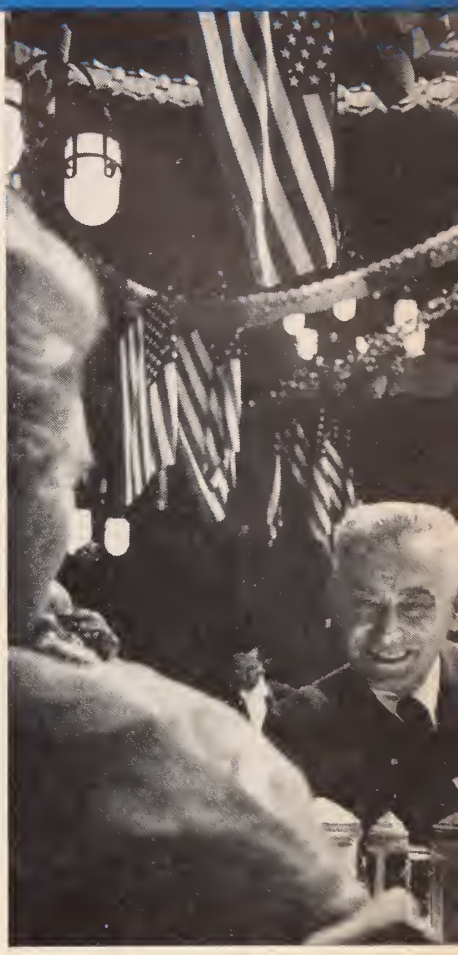
5 years of control



The patient's dosage had to be increased in 1960 at the death of his sister (also a diabetic). For two months, maintenance of control required 2.5 to 3.5 Gm. of Orinase a day; dosage then leveled off again at 1 Gm.



About a year later, when Mr. B.'s wife was incapacitated by an eye ailment, his need for Orinase increased again. During his wife's convalescence, he was taking 2.5 Gm. daily.



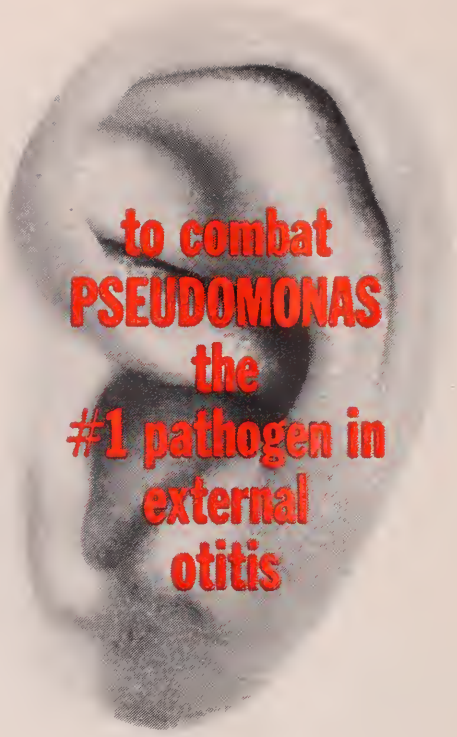
Mr. B. is an energetic and sociable man. His work and his philanthropic, family, and social obligations keep him extremely busy. On Orinase, he takes this life in stride.

Orinase* (tolbutamide) stands in a unique position; it alone, among oral antidiabetes agents, has had five years or more of day-to-day routine clinical use in the hands of thousands of physicians throughout the country. Accordingly, data on a considerable number of truly long-term Orinase-treated patients are now available. This series of Orinase five-year case histories has been prepared to illustrate and exemplify some aspects of actual experience in management. Patient data, made available to us by physicians, have been factually incorporated; however, patients' identities have been concealed. Any inquiries regarding this Orinase case history series should be addressed to: Medical Department, The Upjohn Company, Kalamazoo, Michigan.

Orinase is supplied in bottles of 50 and 200 tablets.
Each tablet contains: tolbutamide...0.5 Gm.
Reminder advertisement. Please see package insert for detailed product information.

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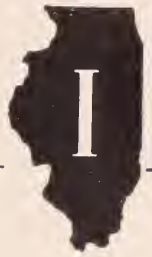
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Neomycin Sulfate (Equivalent to 3.5 mg. Neomycin Base)	5 mg.
Hydrocortisone	10 mg. (1%)

Bottles of 5 cc. with sterile dropper.

Literature available on request.

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NEWS of the STATE



Cook County



Wide World Photo

AMERICAN DOCTOR IN ALGIERS — Dr. George LeRoy of Chicago, right, chats with Algerian Dr. Rahal Abbes at Beni Messous Hospital near Algiers, Dr. LeRoy is head of the American medical team which arrived in Algiers to take care of some of the 1,200 patients in the hospitals.

Mercy Flight to Algiers

A team of seven doctors from the University of Chicago were the first emergency flying squad to serve in a new overseas program developed by MEDICO, a service of CARE.

The University of Chicago medical specialists flew to Algeria July 5 to help put into operation the new Beni-Massous Hospital, a 1,200-bed municipal institution in the city of Algiers.

Dr. George V. LeRoy, specialist in internal medicine and Professor in the University of Chicago Department of Medicine, was in charge of the medical emergency team. He served as chief of medical service at a series of Army hospitals in the South Pacific during World War II.

The following doctors were also members of the emergency team:

Dr. Clifford W. Gurney, Associate Professor and John and Mary Markle Foundation Scholar in the Department of Medicine;

Dr. Nels W. Strandjord, Associate Professor in the Department of Radiology and James Picker Foundation for Radiological Research;

Dr. John E. Kasik, physician and pharmacologist, Assistant Professor in the Department of Medicine;

Dr. Wynn A. Sayman, Assistant Professor in the Department of Surgery;

Dr. Birdwell Finlayson, Instructor in the Urology Section of the Department of Surgery;

Dr. Mohamed R. Salem, Senior Assistant Resident in anesthesia in the Department of Surgery. Dr. Salem, an Egyptian, speaks Arabic.

The MEDICO project was established at the request of the provisional Algerian Government because of the sadly disrupted medical services during years of conflict.

The medical team served for one month. The one-month program has been cited as enabling doctors unable to leave patients and research for long periods of time to assist distressed areas and improve their training in medical problems in a new environment.

Appointments

Three major faculty appointments have been announced by Dr. John J. Sheinin, president of the Chicago Medical School. They include: Dr. Sidney Cohen, chairman of the department of medicine at Michael Reese Hospital and Medical Center, named professor of medicine. Dr. Spyridon G. A. Alivisatos, professor of enzymology at the school, appointed director of

a newly created research division of enzymology and experimental hypersensitivity. Dr. Morton C. Creditor, director of medical education at Michael Reese Hospital, appointed assistant dean and associate professor of medicine.

Pediatricians Elect President

Dr. I. Pat Bronstein was recently elected president of the Chicago Pediatric Society.

AGS President Named

Dr. George H. Gardiner has been elected president of the American Gynecological Society. Dr. Gardiner is chairman of Wesley Hospital's department of obstetrics and gynecology.

Husband-Wife Researchers Awarded Grants

A Northwestern University husband-and-wife pair of researchers has been awarded grants from the National Institute of Health that will enable each to conduct studies for the next five years.

Two Career Research Development Awards have been presented to Dr. David W. Cugell, associate professor of medicine, and to Dr. Christina Enroth-Cugell, assistant professor of physiology. They are engaged in separate research projects on the university's Chicago and Evanston campuses.

It is believed that they are the first married couple to receive such awards for their individual research projects.

Dr. David Cugell is actively engaged in research into both cardiac and pulmonary disorders. His wife has won recognition for her research in ophthalmology, and particularly for her studies of the retina.

Kane County

Mass Immunization Planned

The Kane County Medical Society is planning to sponsor a mass polio immunization program in the fall. Each branch of the Society is preparing distribution procedures. The series will be in the sequence type I, III, II, separated by intervals of at least six weeks.

Tazewell County

Hopedale Physicians Draft Resolution

F. J. L. Blasingame, M.D.
Resolution Committee
American Medical Association

Dear Dr. Blasingame:

Enclosed find an original and one copy of a Resolution proposed by six country doctors, all of whom comprise the medical staff of a small country hospital built without government help or tax money.

Sincerely,
Lawrence J. Rossi, M.D.

RESOLUTION

WHEREAS, the president of the United States, members of his cabinet and certain other highly placed individuals in the present national administration have seen fit to attack the American Medical Association, and

WHEREAS, in their attacks they have repeatedly attempted to convey to the general public the fallacy that many members of the AMA are not in agreement with the policies enunciated publicly by the duly appointed representatives of the AMA, and

WHEREAS, the AMA has been accused of being operated by a small group of powerful men and that the average rank and file physician has no voice in the proceedings of the AMA convention, and

WHEREAS, we, the undersigned general practitioners, all engaged in practice in a rural area, wish to point up the utter absurdity of these attacks upon the AMA, and

WHEREAS, we wish to make known that as members of the AMA, we are eminently grateful and extremely well pleased with the manner in which it has presented the doctor's viewpoint to the public regarding recent health care legislation proposed by the present national administration, now

THEREFORE, BE IT RESOLVED that as country doctors, we are not only proud to be members

of the AMA, we also heartily approve the conduct of its leaders and endorse without reservation its heroic efforts and splendid performance in endeavoring to protect the public from exploitation by irresponsible politicians; not only today, but as it has done throughout its entire 111-year history.

HOPEDALE, ILLINOIS
June 20, 1962

Adam Slaw, M.D.
Delavan, Illinois

Roger E. Neumann, M.D.
Delavan, Illinois

Lembit Lainvee, M.D.
Minier, Illinois

Lawrence J. Rossi, M.D.
Hopedale, Illinois

Albert S. Maurer, M.D.
Hopedale, Illinois

Manivald Harm, M.D.
Mackinaw, Illinois

General

Commendation to Illinois Physicians

The AMA has singled out for commendation four Illinois doctors who have been active on national committees. They include Dr. H. Close Hesseltine, a consultant to the committee on Insurance and Prepayment Plans, Dr. E. W. Cannady, consultant to the Committee on Aging, Dr. L. L. Fatheree, consultant to the Committee on Medical Facilities and Dr. B. E. Montgomery, Council Representative on the Committee on Indigent Care.

AMA Fund Seeks Contributions

The AMA Education and Research Foundation Fund which is used to guarantee repayment of bank loans made to medical students, interns and residents, is seeking contributions from physicians to augment the fund. More than 2,300 students have been aided by this fund.

Nervous
Geriatrics



Mental
Custodial

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RESTHAVEN

This modernly equipped institution located in the beautiful Fox River Valley 35 miles west of Chicago, cooperates with physicians to the fullest extent.

It provides accommodations for 100 patients in single and double rooms. Resthaven accepts patients as guests, voluntary, and committed by court.

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"Space Age" Operating Rooms at Michael Reese



Michael Reese's four story Jennie M. Kaplan Surgical Wing represents an investment of $3,125,000. It is connected to the two main patient buildings so that patients have only a short way to travel to surgery.

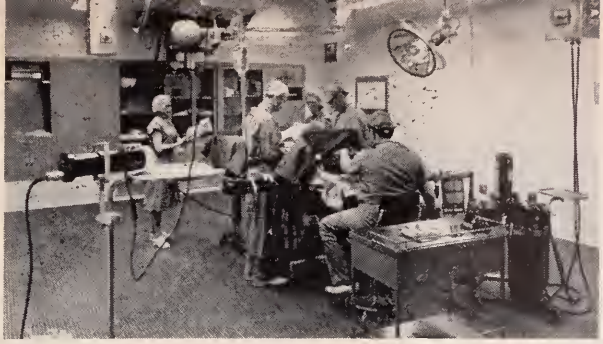
The most advanced major surgical installation in the country was dedicated Sunday, June 24, at Michael Reese Hospital and Medical Center in Chicago.

The new surgical suite is on the second floor of the four-story Jennie M. Kaplan Surgical Wing, built at a cost of $3,125,000. The 22 operating rooms are "space age" equipped to keep pace with changes in modern surgery.

Giant "stalactites" suspended from the ceiling control everything from the patient's anesthetic to providing piped-in oxygen. Outmoded operating equipment has given way to overhead stainless-steel fixtures, which improve sanitation and keep cables and cords from under foot.

Two of the new rooms are king-size (20 x 25 ft.) for operations on the brain and heart which require extensive equipment and large operating teams (up to eight doctors, for instance, are present in open-heart surgery).

Adjoining these big rooms are smaller monitoring rooms where the performance of the patient's heart or brain can be carefully scrutinized on electronic equipment (electrocardiograph or electroencephalograph).





TOP — Besides the anesthesiologist's stalactite, other ceiling units in new operating room at Michael Reese provide leads for monitoring the action of a patient's heart. Also mounted on the ceiliing are hangers for intravenous feedings and a mobile X-ray on tracks.

RIGHT — Anesthesiologist connects equipment to the stalactite containing piped-in oxygen and nitrous oxide.

Each king-sized room is fitted with special cooling equipment to lower body temperature in certain major surgical procedures as open heart surgery. This hypothermic process reduces demands on the patient's heart and permits the surgeon to operate in a nearly bloodless field.

Each operating room has a wall-mounted intercom speaker, which plays soft music, summons doctors for emergencies, and allows communication with another nurse at a master control station.

Inside the operating room, the patient has only a brief time to observe before he is anesthetized. Out of the patient's sight are personnel in such areas as the frozen section room, directed by the pathology department, monitoring rooms with ECG and EEG machines, adjacent to surgery; and, close at hand, the team of doctors, nurses and tecnicians, ready for any emergency. A special "kicker" switch at the base of the wall brings additional personnel quickly in any emergency.

The recovery room can hold 16 patient carts and has two isolation areas. Here, service unit stalactites also keep cords and hoses off the floor.

Absent from the suite is the usual surgical amphitheatre. Experience has shown that large groups of observers cannot see the small details of technique required for good instruction. Also, the more chance of unwanted infection. TV has taken over and beams to a remote classroom extreme close-ups and full color, as the surgeon sees it.

Appointments



William R. Thompson



Richard B. Capps

Dr. Richard B. Capps, authority on diseases of the liver, has been named president of the Presbyterian-St. Luke's Hospital and medical staff.

Dr. William R. Thompson has assumed the duties of the newly created position of Director of Medical Education at Mercy Hospital. Formerly co-ordinator of Medical Education at Hackensack, New Jersey General Hospital, Dr. Thompson will co-ordinate and implement the continuing medical education program for Mercy's interns, residents and attending staff.

Dr. John A. Cooper, professor of biochemistry and Associate Dean of the Northwestern University Medical School, has been named editor of The Journal of Medical Education.

Peter H. Sammond has been appointed an

Assistant Superintendent at the University of Chicago Hospitals and Clinics. He had been the administrative resident at the University of Illinois Research and Educational Hospital, Chicago.

Edmund Perun, a graduate of St. Louis University's School of Hospital Administration, has been appointed to serve as administrative resident at St. Mary of Nazareth Hospital.

St. James Plans Addition

Officials of St. James Hospital, Chicago Heights, have announced plans for a 216-bed addition.

The new wing, which will make St. James one of the largest hospitals in the Chicago area, will be completed late in 1963.

The six story addition will include new kitchen and cafeteria facilities for the public, medical staff and employees.

Forest Hospital Addition Dedicated

Des Plaines' Forest Hospital recently dedicated its new therapy building which features a patient's swimming pool, gymnasium, game rooms and adjunctive therapy. Guest speaker Dr. Francis J. Gerty, Director of the Illinois Department of Mental Health, spoke on "The Private Psychiatric Hospital as a Community Resource."

Lying-In's 100,000th

The 100,000th baby born at the Chicago Lying-In Hospital of the University of Chicago, 31 years after the first was delivered, was the daughter of Dr. and Mrs. Robert S. Galligan.

Deaths

Eugene T. McEnery, prominent Chicago pediatrician and a leader in both the State and Chicago Medical Societies, died July 3, aged 65 of a cerebral hemorrhage. Dr. McEnery was 2nd vice-president of the ISMS 1961-1962, served as an alternate delegate to the AMA annual meeting in June and had served as president of the Chicago Medical Society, 1952-1953.



FREQUENTLY IN THE FOREFRONT OF ISMS AFFAIRS, Dr. McEnery is shown here leading a discussion at the PR-Medical Economics Institute luncheon held during this year's annual meeting.

President of the medical staff at St. Elizabeth's Hospital, he was also attending pediatrician at St. Anne's, Columbus and Children's Memorial hospitals. He was certified in Pediatrics in 1936, was a member of the American Academy of Pediatrics. He graduated from Loyola University School of Medicine in 1926 and later became professor of pediatrics there. He was also a fellow of the American College of Chest Physicians.

Dr. McEnery was also a dedicated servant to his community. He was a member of the Board of Health Advisory Committee, a board member of the Suburban Cook County Tuberculosis sanitarium and a board member of the Catholic Charities of Chicago. During World War I, he served as a naval ensign.

He is survived by his widow, Eleanor, and five sons. Two, Dr. John T. and Dr. Eugene T., Jr., are Chicago physicians. The other three are Charles T., William T. and Paul T., a medical student at Loyola University School of Medicine.

Robert A. Arens°, retired, Chicago, a graduate of Chicago Medical School in 1918, died May 31, aged 73. Certified in radiology in 1934, he was head of the radiological department of Michael Reese Hospital until his retirement in 1954. He was credited with many innovations in radiological technology and served on the radiological committees of the AMA and ISMS. He was president-emeritus of the Chicago Roentgen Society. During World War I he served as a captain in the Army Medical Corps.

(Continued on page 195)



FOREST
HOSPITAL

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Joint Commission on Accreditation of Hospitals

A Blue Cross-Blue Shield Plan Hospital

Rudolph G. Novick, M.D.
Medical Director

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Coca-Cola
TRADE-MARK ®

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Continuing Education Courses

STARTING DATES-FALL, 1962

Surgical Technic, Two Weeks, September 10, November 5
Surgery of Colon & Rectum, One Week, September 17
Surgery of Stomach & Duodenum, One Week, September 24
Vaginal Approach to Pelvic Surgery, One Week, Sept. 10
Gynecology, Office & Operative, Two Weeks, September 17
Obstetrics, General & Surgical, Two Weeks, October 8
Urology, Two Weeks, October 29
Proctoscopy & Sigmoidoscopy, One Week, September 10
General Practice Review, One Week, October 8
Gallbladder Surgery, 3 Days, October 8
Surgery of Hernia, 3 Days, October 11
Basic Electrocardiography, One Week, October 1
Board Review, Internal Medicine—Part I, September 10
Advances in Medicine, One Week, October 15
Advances in Surgery, One Week, December 10
Blood Vessel Surgery, One Week, October 22
Board of Surgery Review, Part I, Two Weeks, November 5
Board of Surgery Review—Part II, Two Weeks, November 26
Fractures & Traumatic Surgery, Two Weeks, October 1

Information concerning numerous other continuation courses available upon request.

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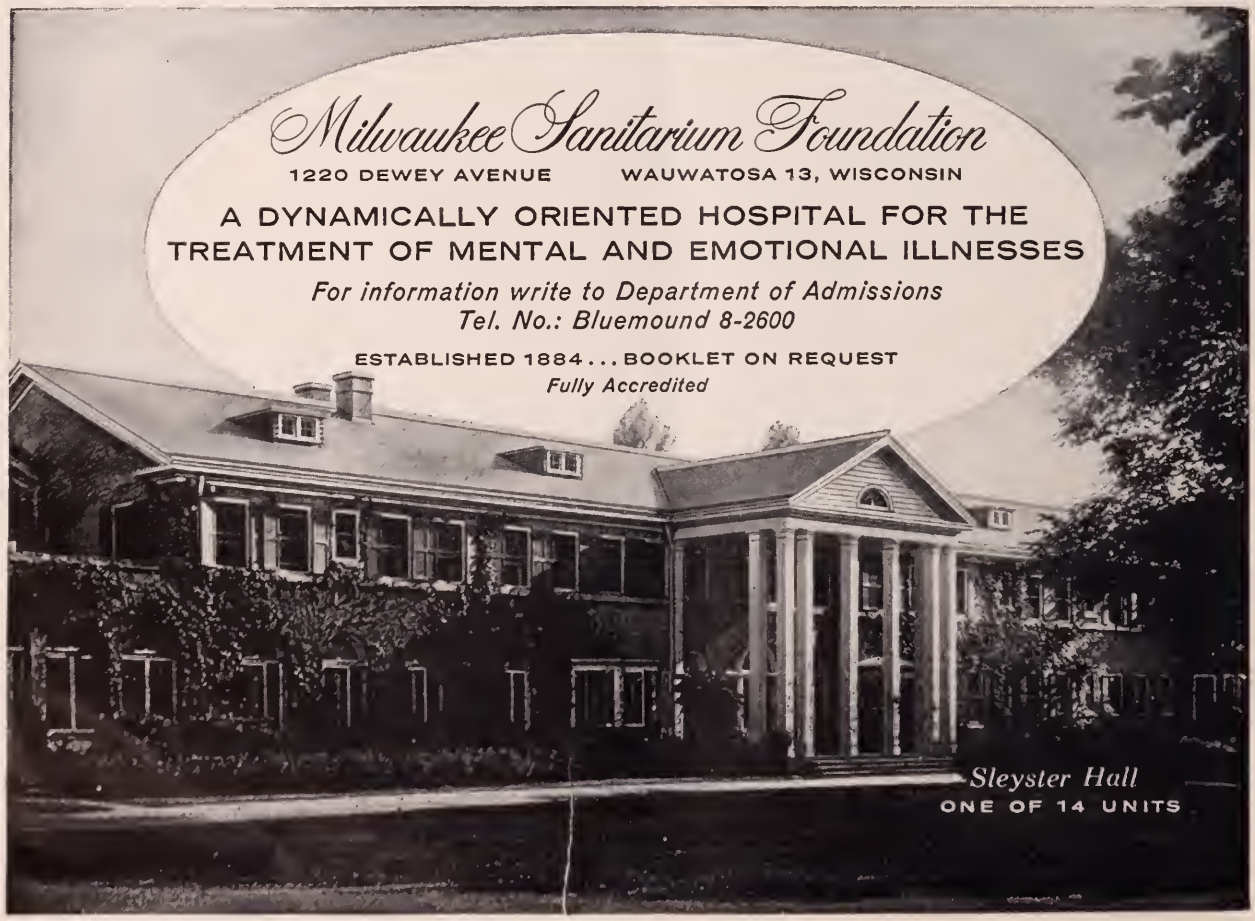
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AFTER AUGUST 1st 1962

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Herschel Logan Bass*, Grayville, a graduate of the University of Louisville School of Medicine in 1909, died June 13, aged 79. A member of the 50-Year Club, he had practiced medicine in southern Illinois for 53 years. He was also a Grayville city health officer.

Edward Buckman*, Chicago, a graduate of Rush Medical College in 1913, died June 29, aged 72. He was chief medical officer for the Chicago Board of Health and had served as a faculty member at the University of Illinois Medical School for 20 years.

Salvator Damiani*, Chicago, a graduate of Illinois Medical College in 1910, died May 30, aged 75. He was a member of the 50-Year Club.

Dick J. Freriks*, La Grange, a graduate of Rush Medical College in 1935, died June 29, aged 55. He was a surgeon commander in the 4th Marine division in World War II.

Leon Glassman*, Chicago, a graduate of the University of Illinois College of Medicine in 1913, died May 18, aged 75. He was an emeritus member of the Society.

Ralph Graham*, retired, Monmouth, a graduate of Rush Medical College in 1900, died June 21, aged 87. An emeritus member of ISMS and a member of the 50-Year Club, before his retirement he had been active in community affairs and served as Monmouth college physician.

Jerome W. Hayden*, Chicago, a graduate of Loyola University School of Medicine in 1926, died June 22, aged 61. Certified in Otolaryngology in 1934, he was a member of the American College of Surgeons, American Academy of Eye, Ear, Nose and Throat, American Board and the Chicago Society of Otolaryngology.

George H. Henry*, Oblong, a graduate of Northwestern University Medical School in 1910, died June 9, aged 84. A member of the 50-Year Club and an emeritus member of the ISMS, he was a past president of the Aesculapian Society of Wabash Valley.

Walter Raymond Jones, retired, Redmon, a graduate of the University of Illinois College of Medicine in 1912, died June 14, aged 75. Certified in Urology in 1938, he practiced in Seattle, Washington and taught at the University of Washington before returning to Illinois.

Ralph Kinle*, Chicago, a graduate of Bennett Medical College in 1915, died June 17, aged 72. A staff physician at St. Francis Hospital in Evanston, he had practiced in Chicago's Rogers Park area for 47 years.

John J. Madden*, Chicago, a graduate of Loyola University School of Medicine in 1928, died June 24, aged 60. He was certified in Psychiatry and Neurology in 1940 and was chairman of the departments of neuropsychiatry at Loretto and Mercy hospitals. A professor of nervous and mental diseases at Loyola University School of Medicine, he was decorated by Pope Pius XII for his work in the archdiocese of Chicago. He was past president of both the Chicago Neurology and the Illinois Psychiatric Societies and a diplomate and examiner of the American Board of Psychiatry and Neurology.

George Majnarich*, Dixon, a graduate of the University of Naples, Italy, School of Medicine in 1952, died May 27, aged 36.

Earl H. Mitchell*, Marshall, a graduate of Indiana University School of Medicine in 1917, died June 7, aged 70. He served in the Medical Corps in World War I.

William N. Osborn*, Joliet, a graduate of Northwestern University Medical School in 1943, died June 12, aged 47. Certified in Urology in 1951, he was a fellow in the American Urological association. He served with the Navy in World War II.

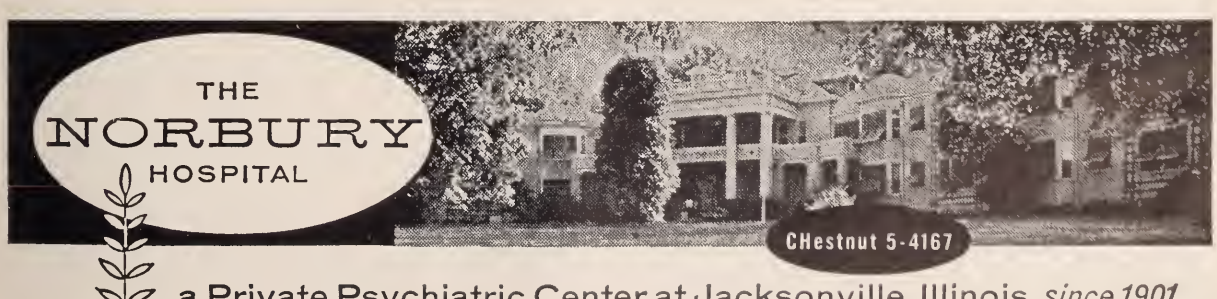
Joseph M. Pape*, Chicago, a graduate of Northwestern University Medical School in 1924, died June 28, aged 71. He lectured for a time at the University in pediatrics and clinical surgery.

Carl T. Stephan*, Chicago, a graduate of Rush Medical College in 1920, died June 20, aged 73. A staff member of Augustana Hospital, he formerly served on the staff of Cook County Hospital.

Stefan Van Wien*, Chicago, a graduate of Ludwig-Maximilian University Medical School, Munich, in 1931, died June 21, aged 55. He was certified in Ophthalmology in 1939.

William W. Wood*, retired, Chicago, a graduate of Bennett Medical College in 1911, died May 25, aged 84. He was a member of the 50-Year Club.

**Indicates member of Illinois State Medical Society.*



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Complete psychiatric treatment in an environment for cure. A 75 bed hospital with the most modern diagnostic and therapeutic equipment for the treatment of nervous and mental disorders.

LICENSED: Illinois Department of Mental Health

MEMBER: Illinois Medical Service (Blue Cross-Blue Shield)

ISMS at AMA



COMFORTABLE LIVING ROOM ATMOSPHERE at ISMS Hospitality Suite in Palmer House helped AMA doctors relax between busy Meeting activities.

Hosting "Greatest Medical Show on Earth" Hectic Mixture of Planning, Work, Satisfaction

"Plan ahead" is old but sound advice. Witness the Illinois State Medical Society, which began planning for its important role as host to this year's AMA Annual Meeting over a year ago. "As a result of this advance planning," states ISMS executive administrator Robert L. Richards, "all the loose ends were tied securely well before the meeting, and it went off without a hitch."

Tieing the "loose ends" was the job of a Local Committee on Arrangements headed by Dr. Walter C. Bornemeier and consisting of over 60 ISMS officers and members. This Committee in turn assigned specific committees to handle the Delegates' Dinner; Visiting Dignitaries; Liaison with Miliary Services; Liaison with Officers and Delegates; Liaison with State and National Organizations; International Visitors; Liaison with Golf Association; Bowling; TV; Registration; Liaison with Women's Auxiliary; Publicity; Cook County Attendance; and Downstate Attendance.

The many host functions were carried on at several "home bases." At the Palmer House, a Hospitality Suite proved an enjoyable center of social activity for hundreds of AMA members. The ISMS Auxiliary was hostess to 907 members of the AMA Auxiliary at the Pick-Congress hotel. Highlight of Auxiliary activity was the luncheon on Tuesday, June 26, honoring immediate past president Mrs. Harlan English and newly installed president Mrs. William Thuss. At McCormick Place, ISMS maintained a Hospitality Area identified by a large welcome sign inviting visitors to ask for directions or general information from the host Illinois delegation.

One of the most unusual and interesting activities was hosting the more than 400 visiting doctors from foreign countries. Virtually every non-Iron Curtain country was represented, including India, Africa, and New Zealand. Dr. Fred A. Tworoger was chairman of the Foreign Host Committee, which maintained an International Hospitality Suite at McCormick Place. The foreign doctors' itinerary included tours of Wesley Memorial and South Side hospitals; a luncheon (hosted by Dr. Morris Fishbein) at the Museum of Science and Industry, and a garden party, featuring exotic foods, hosted by Dr. Frank Walsh. In addition, the foreign surgeons were given a luncheon by the International College of Surgeons. "More requests were made to host the foreign doctors than could be filled," reported Dr. Tworoger. He added that "many of the foreign doctors showed keen interest in American medical practices and problems, including Kerr-Mills and King-Anderson."

The most important single social event was the Delegates' Reception and Dinner on Monday evening, June 25, attended by more than



"MEDICAL PATHFINDERS" exhibit at AMA is looked over approvingly by Dr. C. Paul White (left) past president of ISMS, and Dr. Everett P. Coleman of Canton, Ill. The exhibit, presented by John A. Mirt and Mrs. Clara Mai Rutherford, illustrates progress from 2,000 B.C. to the atomic age through postage stamps. More than 400 stamps were used as illustrations.

500 AMA officials, members and guests. Music and entertainment were provided by Lou Breese and his orchestra.

Attendant activities included the American Medical Golf Association's 46th Golf Tourney, in which 142 physician-golfers participated. For the first time, two women physicians competed. Another "first" was the AMA Bowling Tournament, hosted by ISMS in cooperation with the Brunswick Co. Although publicity plans for a bowling match between TV's "Ben Casey" and "Dr. Kildare" did not materialize because of conflicting schedules, the Tournament proved so popular that it is anticipated as an annual event.

Our success as host to the AMA Annual Meeting is the sum of many parts. Planning, hard work, selfless giving of time and energy by the ISMS Local Committees and staff were necessary factors. Dr. George F. Lull, widely known and respected throughout organized medicine, served ideally as host-president. Spacious McCormick Place, where more than 700 AMA exhibits were grouped under a single roof on a single floor, won plaudits from physicians and exhibitors alike as the finest exhibit hall in the country. Much credit also goes to the Chicago Medical Society, without whose cooperative efforts many of the hospitality services could not have been offered.

As many of the doctors concluded: "I never received a better greeting than in Chicago." To assure that this reaction remains unchanged, ISMS already is laying plans for 1966, when next it hosts "the biggest medical show on earth."

COFFEE AND CONVERSATION are enjoyed at International Hospitality Suite by Dr. and Mrs. Samamurth, Heiderabadh, India, and Dr. Callahan, Waukegan.



PHYSICIAN TO THE KING OF GREECE, Dr. Papavadlion *(left)*, asks Dr. Doxiades how he likes American coffee.



The National Convention: from an Auxiliary Delegate's View

"Speak your beliefs in deeds" was the theme of the thirty-ninth annual convention of the Woman's Auxiliary to the American Medical Association meeting at the Pick-Congress Hotel in Chicago June 24-28. To sit in sessions of this convention with delegates from every state in the Union was a tremendous experience. Nearly 1200 were registered out of the 80,000 members throughout the nation.

Newly installed president Mrs. William C. Thuss of Birmingham, Alabama, said in her inaugural address, "We are on a launching pad today, right here in this room and together we *can* reach the moon and even go higher in our accomplishments this year." Such was the enthusiasm which prevailed throughout all the sessions and social activities of the convention.

Senator John G. Tower of Texas was the main speaker at AMPAC's (American Medical Political Action Committee) first banquet held in the Grand Ballroom of the Palmer House, Sunday evening. "We cannot have a planned society in this country. Government must have order in its society — it must not order society," was his opening statement to the group. "The only effective way to achieve this end is to elect like-minded people to public office. We must make politics everybody's business." AMPAC is not affiliated with any political party.

Mrs. Harlan English of Danville, Illinois, 1961-1962 president of the national organization, presided at the business sessions.

A check for $244,172.35 was presented to Dr. Hugh Hussey, president of AMA's new Education, Research Foundation — the largest contribution in the 11 year history of AMEF (American Medical Education Fund). This fund is used for medical schools, fellowships, research grants, and loans to medical students and doctors to further their education and research.

Dr. Edward R. Annis ably substituted for Senator Everett Dirksen at one of the coffee hours, stressing the fight of AMA against the King-Anderson bill and Medicare in Congress.

Dr. Frederick J. Stare of Harvard University's department of nutrition gave a report on health food fads. Dr. Stare called upon physicians' wives to "speak up and be forthright" on the problem of food quackery.

"Physicians' wives have an opportunity to become public relations experts," Dr. Leonard Larson, AMA's immediate past president, told the auxiliary. "The ability to counsel your husband and to present honest and diplomatic answers when questioned by his patients, to see two sides to an issue, to be fair and objective — this ability is no small act. When you practice it, you are contributing more than you realize to an effective doctor-patient relationship."

International health activities, community service, rural health, mental health, along with legislation and safety seem to stand out with the most emphasis for the coming year.

All of the sessions were most interesting and thought-provoking, and each gave me something of value to take home to my own county auxiliary. I was especially impressed by the strides that AMPAC is making and I feel that is our greatest line of defense to ward off socialized medicine in this nation.

Permit me to testify to the worth of the convention of the national auxiliary. No one who attends some of its sessions can fail to absorb some enthusiasm for its work in the many departments it offers.

Respectfully submitted
Mrs. Laurence F. Rockey
Delegate from the State of Illinois

AMA REGISTRATION FIGURES

Final registeration figures for the AMA Annual Meeting list a total physician registration of 14,092 with guest registration bringing the total to 42,643. These figures compare favorably to the last AMA meeting in Chicago in 1956 when 11,069 physicians registered with a total attendance of 27,115. This year 2,278 Illinois physicians and 3,861 Chicago physicians took part in convention activities.



Doctors of Hope

Nearly two years ago, a doctor with a dream asked the American people to support his untested project to sail a hospital ship to the frontiers of the battle against disease and Communism. They responded generously and its medical diplomats wrote history in the annals of efforts to help others help themselves. A strictly private program representing the warm heart of the American people, Project HOPE's work amongst the people of these new countries is a monument to our democratic way of life and our free enterprise system. Project HOPE, endorsed by ISMS, is no longer untested but of proven, demonstrable value.

In September of 1961, the white hospital ship HOPE returned from her maiden voyage in Southeast Asia, with a year's experience, 28,000 patients and 20,000 miles of mercy missions behind her. Project HOPE's effectiveness is evidenced by the dozens of invitations received from newly-developing countries all over the world, as well as by those to return to Southeast Asia.

Project HOPE is not a "give-away" operation; it does not funnel massive amounts of supplies and money and then turn its back and expect the problem to solve itself. It offers only the most precious of man's qualities: skills and compassion. And when it leaves a country many months later, it leaves behind a permanent program to carry on its work. In many villages and cities of Southeast Asia, time is now marked as "pre-HOPE" and "after HOPE."

Now Dr. Walsh is asking all Americans to give and give generously to sail the S. S. HOPE to Latin America in 1962. The HOPE sails forth to answer, on behalf of the American people, the insidious challenge of Communism in this hemisphere. She will only continue her good work with our unstinting support, as unmistakable evidence that we Americans, as private citizens, are willing to do our part.

We hear enough criticism of foreign aid policies and our problems on the international scene; too often do we hear about roads built that lead to nowhere, dams built where there is no water and factories erected for which there are no skilled workers to man them. Here is our chance to do something positive and constructive about it.

Project HOPE goes with no government money and no government direction. Its doctors, nurses and technicians work *with the people*, living *their* life and sharing *their* problems. Let's all get behind Project HOPE and give it the support it needs to continue and expand its valuable work in medical teaching and training. And let's all take pride in what our support is accomplishing for our country, both in terms of goodwill and understanding of our way of life, and in terms of doing something that enables others to help themselves instead of being dependent on the foreign aid dole.

The doctors of HOPE are leaving their families for a year of hard but rewarding work. They are sacrificing income and practices. Let's show them we are prepared to make our sacrifices too — by sending our dollars to Project HOPE, Washington, D. C.

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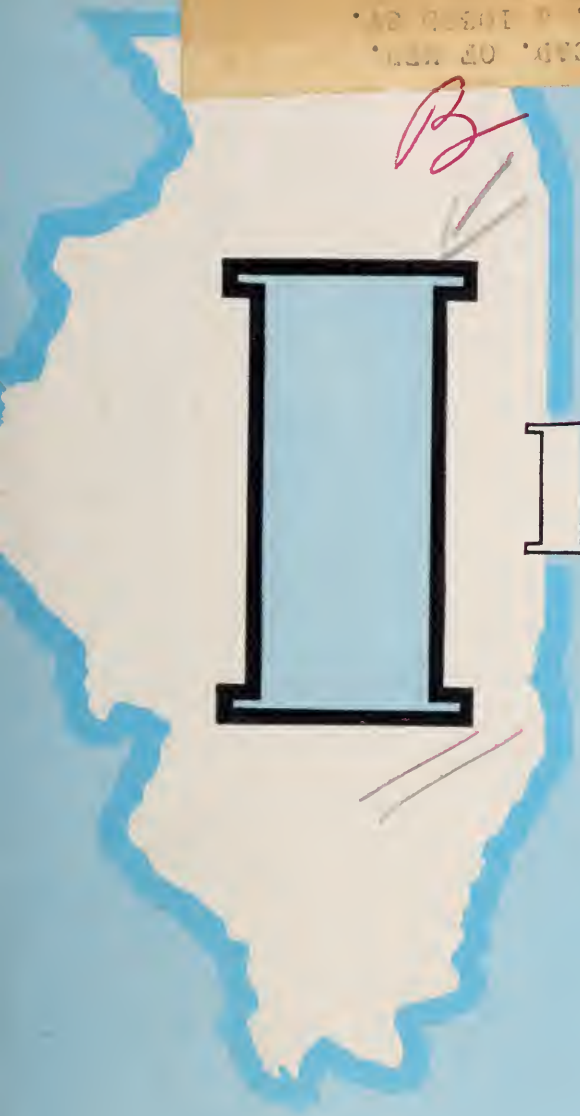
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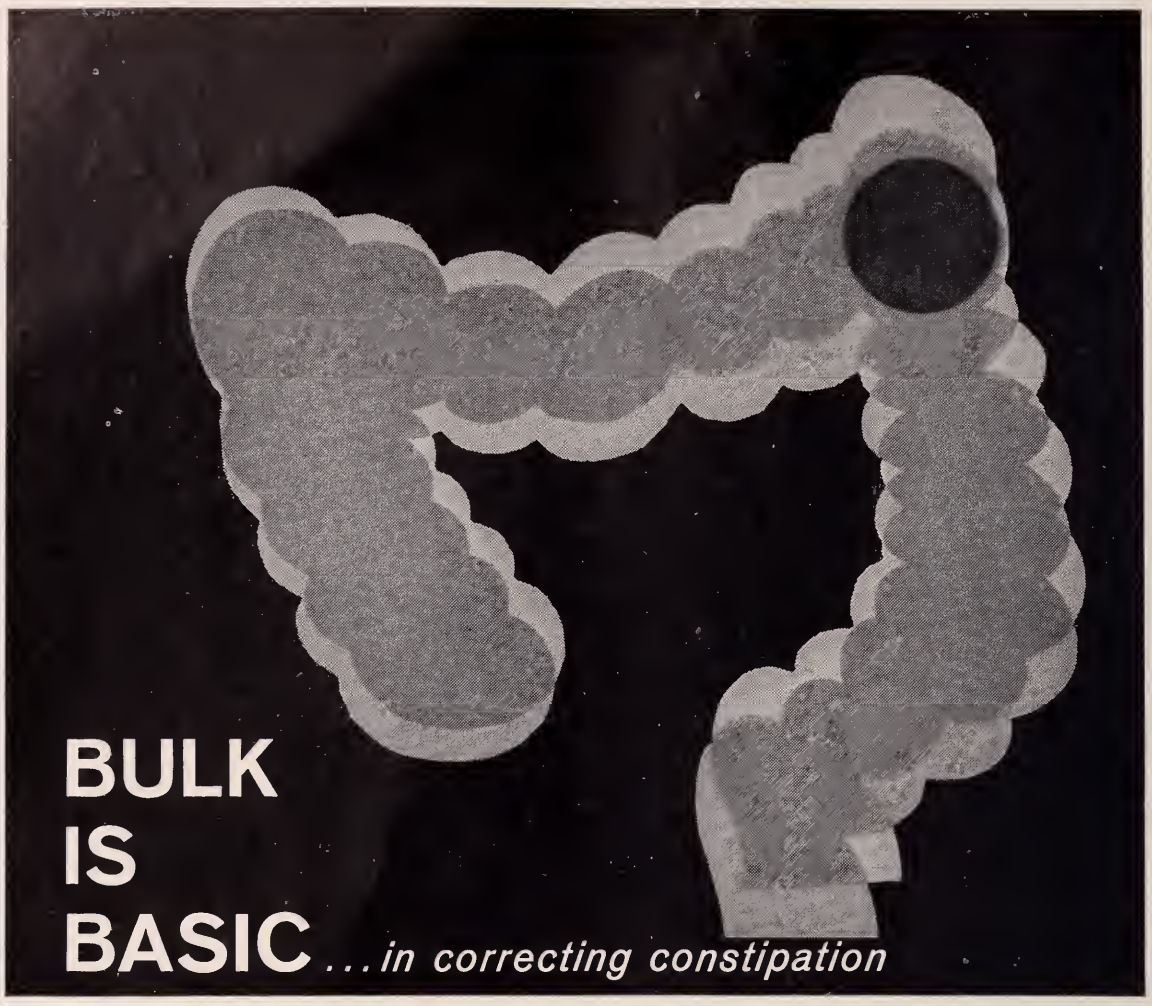
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1. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice, ed. 6, Baltimore, The Williams & Wilkins Company, 1955, p. 578.

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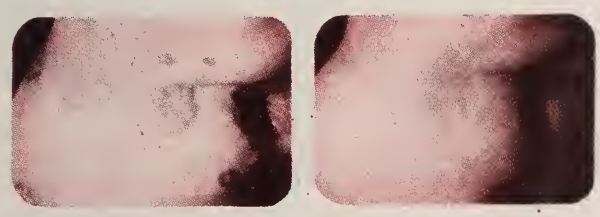
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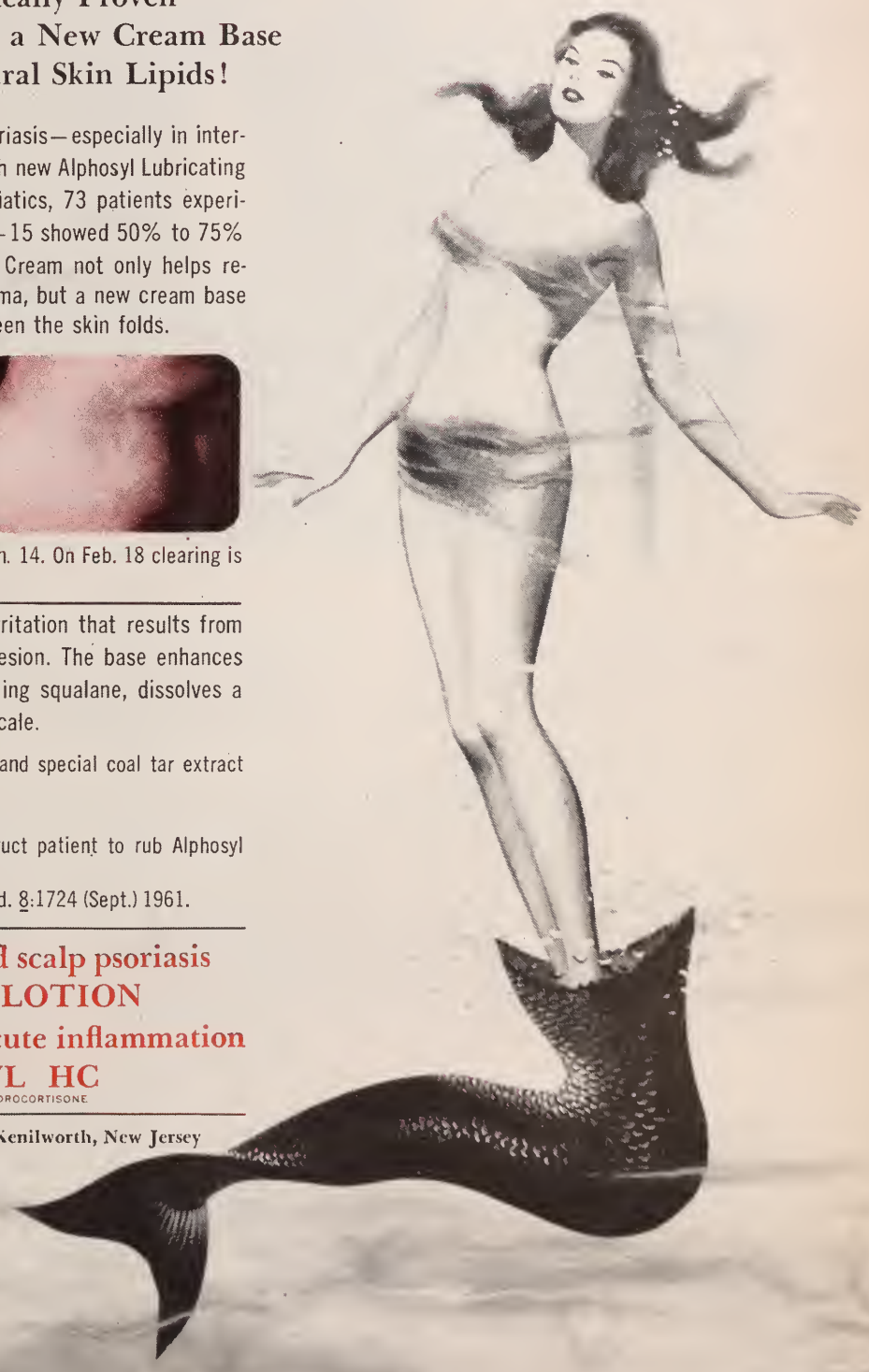
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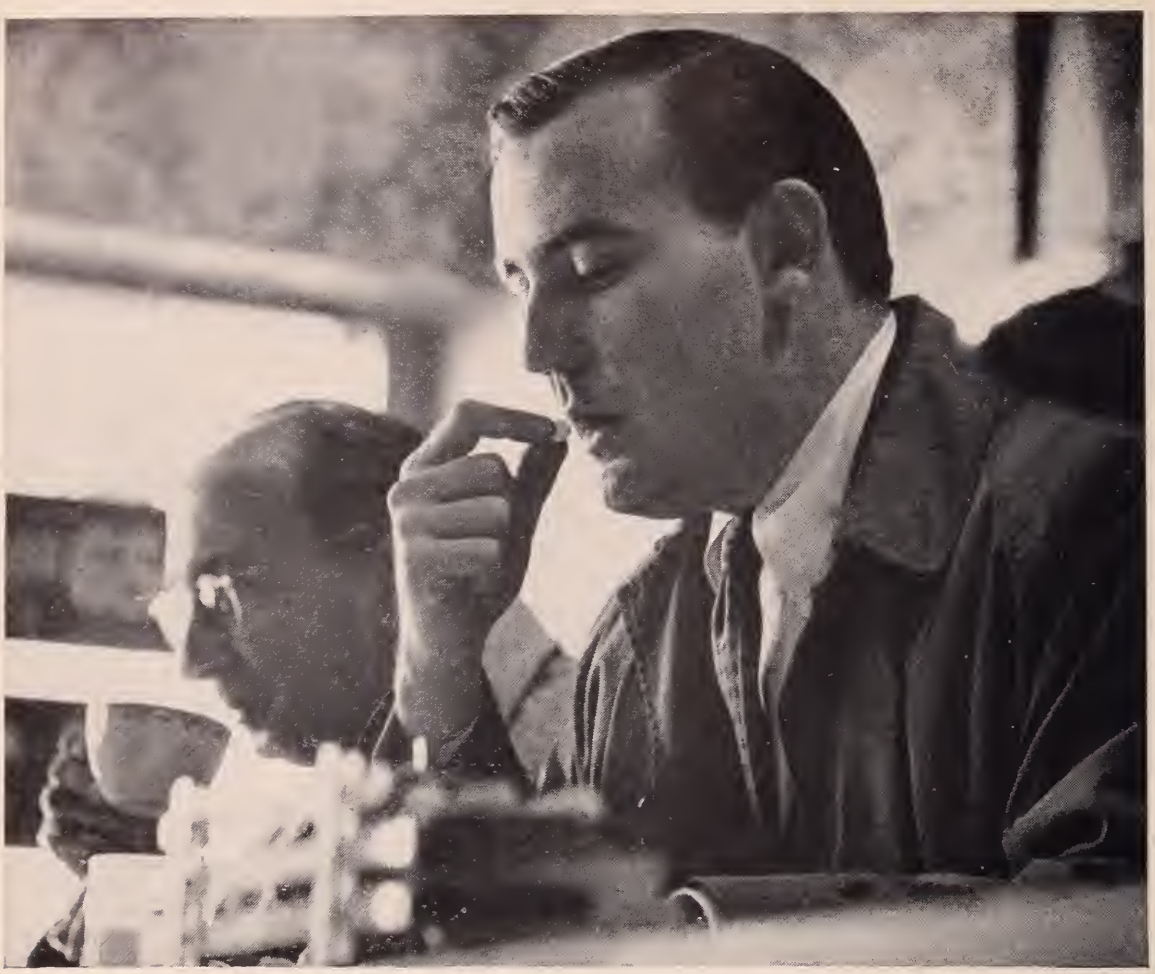
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*Schwartz, I. R.:
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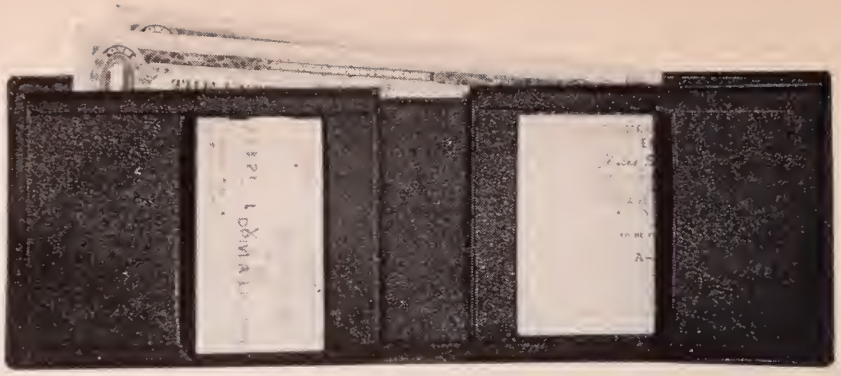
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Dexamethasone 'Organon'

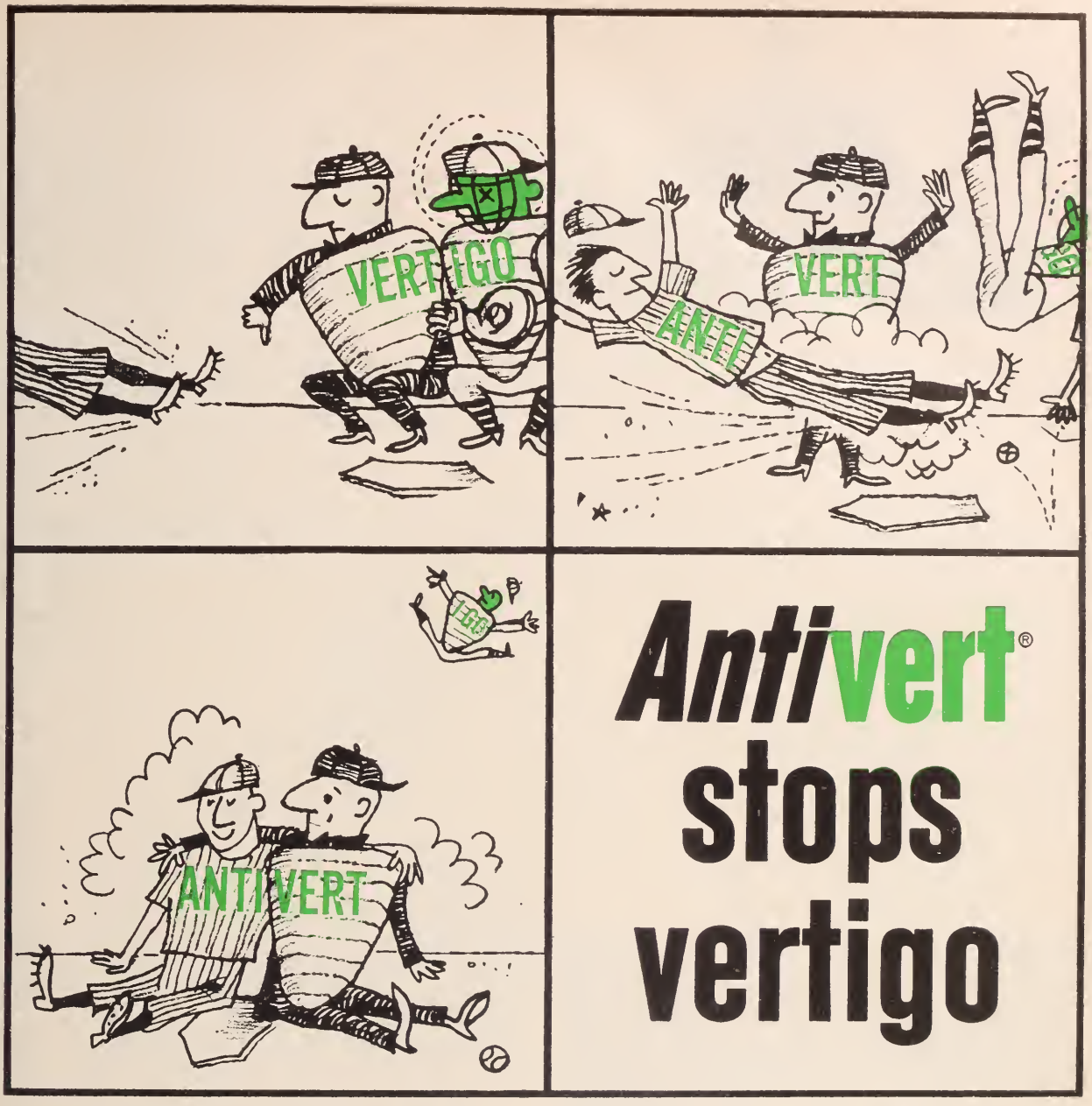
The corticosteroid unexcelled in clinical benefits with cost-to-patient greatly reduced

When you prescribe HEXADROL you give your patients all the clinical advantages of the newer, most effective and best-tolerated corticosteroids. At the same time, you provide relief of the Pocketbook Syndrome, a most common complication of therapy with a steroid of choice. This new and unique benefit of important savings to your patients results from Organon leadership in research, development, and new, more efficient manufacturing processes.

Clinical background? This steroid has a recorded history unequaled in scope and authoritativeness among all the newer corticoids. **Quality?** HEXADROL, brand of dexamethasone 'Organon'...your assurance of professional quality through research, production and control. **Supplied?** Tablets 0.75 mg., scored. For a trial supply, write to: Director, Professional Services, Organon Inc., West Orange, N. J.

Cost-to-patient? Greatly reduced! Why not check with your local pharmacist on prescription cost to your patients?

Organon



Antivert® stops vertigo

moderate to complete relief of symptoms in 9 out of 10 patients*

Prescribe ANTIVERT, a leading anti-vertigo product, for prompt relief of vertigo, Meniere's syndrome and allied disorders. Side reactions, usually only flushing and tingling, are short-lived and considered coincidental to the vasodilation produced by nicotinic acid. As with all vasodilators, ANTIVERT is contraindicated in severe hypotension and hemorrhage.

Dosage: One ANTIVERT tablet (or 1-2 teaspoonfuls ANTIVERT syrup) three times daily, before each meal. **Supplied:** Small blue-and-white scored tablets (meclizine HCl 12.5 mg. and nicotinic acid 50 mg.) in bottles of 100. Syrup (each 5 cc. teaspoonful contains meclizine HCl 6.25 mg. and nicotinic acid 25 mg.) in pint bottles. Prescription only. Bibliography available on request.
*Scal, J. C.: Eye Ear Nose & Throat Month. **38**:738 (Sept.) 1959.

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New York, N.Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

And for your aging patients—
NEOBON® Capsules
five-factor geriatric supplement



AS I SEE IT FROM '360'

By Robert L. Richards
Executive Administrator

Harold J. Homann Appointed Executive Administrator of Winnebago County Medical Society

As the County Medical Society Goes, so goes organized medicine. This basic axiom pin points the vital grass roots role of our county societies, where the day-to-day problems of medical administration are ultimately referred and resolved.

In past years there existed an acute shortage of able medical administrators on the county society level. There are still barely enough to meet the ever-increasing demand. For this reason I was delighted to hear of the appointment of Mr. Harold J. Homann, Rockford, as the new Executive Administrator of the Winnebago County Medical Society. In Mr. Homann, Winnebago County has selected an experienced administrator capable of discharging the many duties required of a county medical society, and one who is challenged by the opportunity to serve organized medicine. We at ISMS extend our warmest congratulations to Mr. Homann on his appointment, and eagerly look forward to working with him.

Harold J. Homann



In addition to his wealth of executive experience, Mr. Homann brings to his new position a well-earned reputation as public speaker and author of several books and numerous magazine articles. A native of Milwaukee, Wisconsin and a graduate of Marquette University, he has been very active in the Boy Scout movement in Milwaukee and in Alton, Illinois, since 1928. From 1942 to 1961 he served as Scout Executive of the Blackhawk Area Council in Rockford.

During his Boy Scout activities, he served as director of Youth Day Program for the Illinois State Fair from 1939 to 1941, and for the Youth Day Program at the Wisconsin State Fair from 1941 to 1944. In 1944 he directed the Red Cross Pageant at Soldier's Field, Chicago. In 1956 he wrote the script and directed the Independence Day Arena Show at the National Boy Scout Jamboree in Valley Forge, Pennsylvania, and again at the 1953 Jamboree at Santa Ana, California. Until his current appointment he was associated with the Illinois Hospital and Health Service.

Mr. Homann and his wife make their home in Rockford.



"Alone I walk the peopled city..."

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(diphenylhydantain, Parke-Davis)

HELPS THE EPILEPTIC TO LEAD A MORE FRUITFUL LIFE

"In a series of over 3,000 epileptics...DILANTIN alone or in combination with other drugs has been the sheet anchor in the management." Effective in control of grand mal and psychomotor seizures. DILANTIN (diphenylhydantoin, Parke-Davis) is available in several forms, including DILANTIN Sodium Kapseals,® 0.03 Gm. and 0.1 Gm., bottles of 100 and 1,000. Other members of the PARKE-DAVIS FAMILY OF ANTICONVULSANTS for grand mal and psychomotor seizures: PHELANTIN® Kapseals (Dilantin 100 mg., phenobarbital 30 mg., desoxyephedrine hydrochloride 2.5 mg.), bottles of 100: for the petit mal triad: MILONTIN® Kapseals (phensuximide, Parke-Davis), 0.5 Gm., bottles of 100 and 1,000, and Suspension, 250 mg. per 4 cc., 16-ounce bottles. CELONTIN® Kapseals (methsuximide, Parke-Davis), 0.3 Gm., bottles of 100. ZARONTIN® Capsules (ethosuximide, Parke-Davis), 0.25 Gm., bottles of 100.*

*Roseman, E.: Neurology 11:912, 1961.

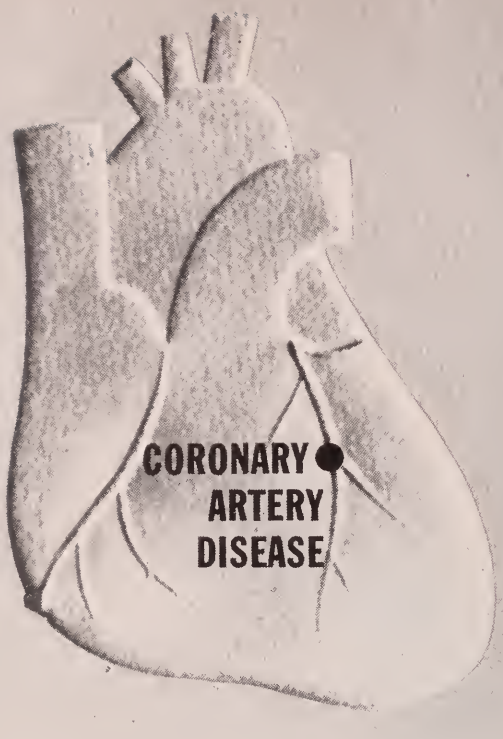
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This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.

93462





• "...now the leading cause of death in diabetic patients."[1]

Diseases of the cardiovascular-renal system account for about three-fourths of deaths among diabetic patients, with heart disease responsible for approximately one-half the total,[2,3] and coronary atherosclerosis the major cause of cardiac lesions.[1] While some feel that diabetics are predisposed, perhaps by heredity, to early onset of vascular disease, considered opinion is that vascular degeneration can be delayed or modified with "...careful and consistent control of diabetes from the time of diagnosis...."[4]

As a major step toward achieving *careful and consistent control,* you can teach your patients to do urine-sugar testing in the way most likely to assure continued cooperation—with the CLINITEST® Urine-Sugar Analysis Set.

for quantitative estimation

color-calibrated

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urine sugar

- continued, close control
- graphic *Analysis Record* encourages co-operation...reveals degree of control at a glance...helps patient maintain control

for "yes-or-no" enzymatic testing

new, improved

DIP AND READ **clinistix®**

urine glucose

10-second reading...longer strip for easier handling...new color chart and color barrier for test area...in glass for protection

Supplied: CLINITEST Urine-Sugar Analysis Set (with bottle of 36 tablets and 2 foil-wrapped tablets); refill boxes of 24 Sealed-in-Foil Reagent Tablets and bottles of 36 tablets. CLINISTIX Reagent Strips in bottles of 60.

References: (1) Root, H. F., and Bradley, R. F., in Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: The Treatment of Diabetes Mellitus, ed. 10, Philadelphia, Lea & Febiger, 1959, pp. 411, 437. (2) Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: *ibid.,* pp. 188-189. (3) Marks, H. H., *et al.:* Diabetes *9*:500, 1960. (4) Marble, A., in Summary of Conference on Diabetic Retinopathy, Survey Ophth. (Part 2) *6*:611-612, 1961.

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Relieves Anxiety and Anxious Depression



The outstanding effectiveness and safety with which Miltown relieves anxiety and anxious depression—the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past six years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Clinically proven in over 750 published studies

1. Acts dependably — without causing ataxia or altering sexual function
2. Does not produce Parkinson-like symptoms, liver damage or agranulocytosis
3. Does not muddle the mind or affect normal behavior

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scared tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® – 400 mg. unmarked, coated tablets; and in sustained-release capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

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Orinase Case History

Orinase dosage



Mr. B. B., a 61-year-old stockbroker, was put on Orinase almost six years ago. On insulin, he had been imperfectly controlled, irritable, and "used to get overly depressed." On Orinase, 1 Gm. per day, control is smooth and Mr. B. is again his former lively self. He regularly works at home well into the night, preparing for the next day's trading.



An active man, Mr. B. occasionally exercises at the gym. He follows baseball with enthusiasm, likes a friendly game of cards, and often goes visiting the various members of his close-knit family.

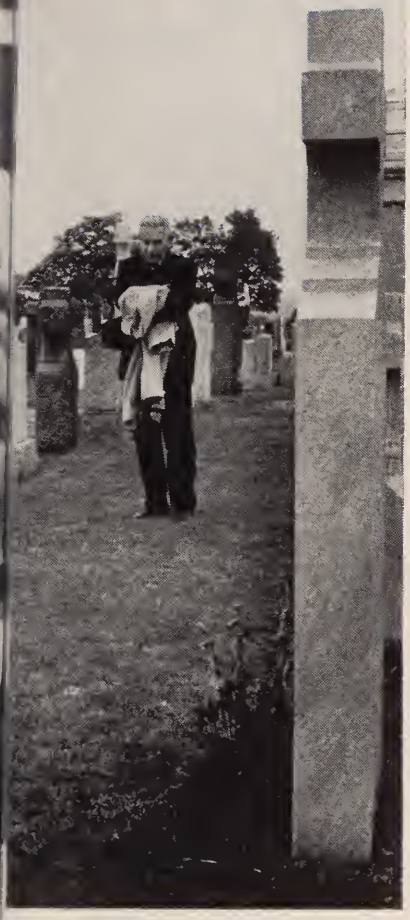


Mr. B., intensely involved in his profession, describes his day as a "continual crisis." Under the stress of representing clients in the face of market fluctuations his Orinase needs also fluctuate. Guided by his physician, Mr. B. adjusts his dosage betweer 1 and 2 Gm. daily.

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*TRADEMARK, REG. U. S. PAT. OFF. — TOLBUTAMIDE, UPJOHN

5 years of control



The patient's dosage had to be increased in 1960 at the death of his sister (also a diabetic). For two months, maintenance of control required 2.5 to 3.5 Gm. of Orinase a day; dosage then leveled off again at 1 Gm.



About a year later, when Mr. B.'s wife was incapacitated by an eye ailment, his need for Orinase increased again. During his wife's convalescence, he was taking 2.5 Gm. daily.



Mr. B. is an energetic and sociable man. His work and his philanthropic, family, and social obligations keep him extremely busy. On Orinase, he takes this life in stride.

rinase* (tolbutamide) stands in a unique position; it alone, mong oral antidiabetes agents, has had five years or more f day-to-day routine clinical use in the hands of thousands f physicians throughout the country. Accordingly, data n a considerable number of truly long-term Orinase-eated patients are now available. This series of Orinase ve-year case histories has been prepared to illustrate and xemplify some aspects of actual experience in manage-ment. Patient data, made available to us by physicians, have been factually incorporated; however, patients' identities have been concealed. Any inquiries regarding this Orinase case history series should be addressed to: Medical Department, The Upjohn Company, Kalamazoo, Michigan.

Orinase is supplied in bottles of 50 and 200 tablets.
Each tablet contains: tolbutamide...0.5 Gm.
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Upjohn

The Upjohn Company, Kalamazoo, Michigan

asthma attack averted
. . . in minutes

patient protected
. . . for hours





Nephenalin®

(the dual-action anti-asthmatic tablet)

. . . works with nebulizer speed—provides four-hour protection

One NEPHENALIN tablet provides: *air in a hurry*—through sublingual isoproterenol HCl, 10 mg. *air for hours*—through theophylline, 2 gr.; ephedrine, 3/8 gr.; phenobarbital, 1/8 gr.
Dosage: Hold one NEPHENALIN tablet under the tongue for five minutes to abort the asthmatic attack promptly. Then swallow the tablet core for four full hours' protection against further attack. Only one tablet should be taken every four hours. No more than five tablets in 24 hours.
Supplied: Bottles of 50 tablets. For children: NEPHENALIN Pediatric, bottles of 50 tablets.
Caution: Do not administer NEPHENALIN with epinephrine. The two medications may be alternated at 4-hour intervals. NEPHENALIN should be administered with caution to patients with hyperthyroidism, acute coronary disease, cardiac asthma, limited cardiac reserve, acute myocardial damage, and to those hypersensitive to sympathomimetic amines. Phenobarbital may be habit forming. THOS. LEEMING & CO., INC., New York 17, N.Y.

DIAGNOSIS: Otitis Media



THERAPEUTIC NEED: Suppression of the causative organisms and symptomatic relief.

ANTIBIOTIC: DECLOMYCIN®

Demethylchlortetracycline Lederle

because of its higher antibacterial activity, and its effectiveness against a wide spectrum of bacteria.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

Stelazine® will stop anxiety—but not your patient!
brand of trifluoperazine

To be truly useful in your office patients, an ataractic agent must not only relieve anxiety; it must also leave these patients sufficiently alert to engage in their normal activities.

'Stelazine' is such an agent. Its ability to relieve anxiety without producing appreciable sedation has been established in thousands of patients and documented by many published reports. Typical is the finding of Kolodny,[1] who concluded that the primary advantage of 'Stelazine' over many other tranquilizers seems to be "its ability to relieve symptoms of anxiety without undue interference with alertness."

When you wish to relieve anxiety, yet encourage the patient to engage in his normal activities, consider 'Stelazine'.

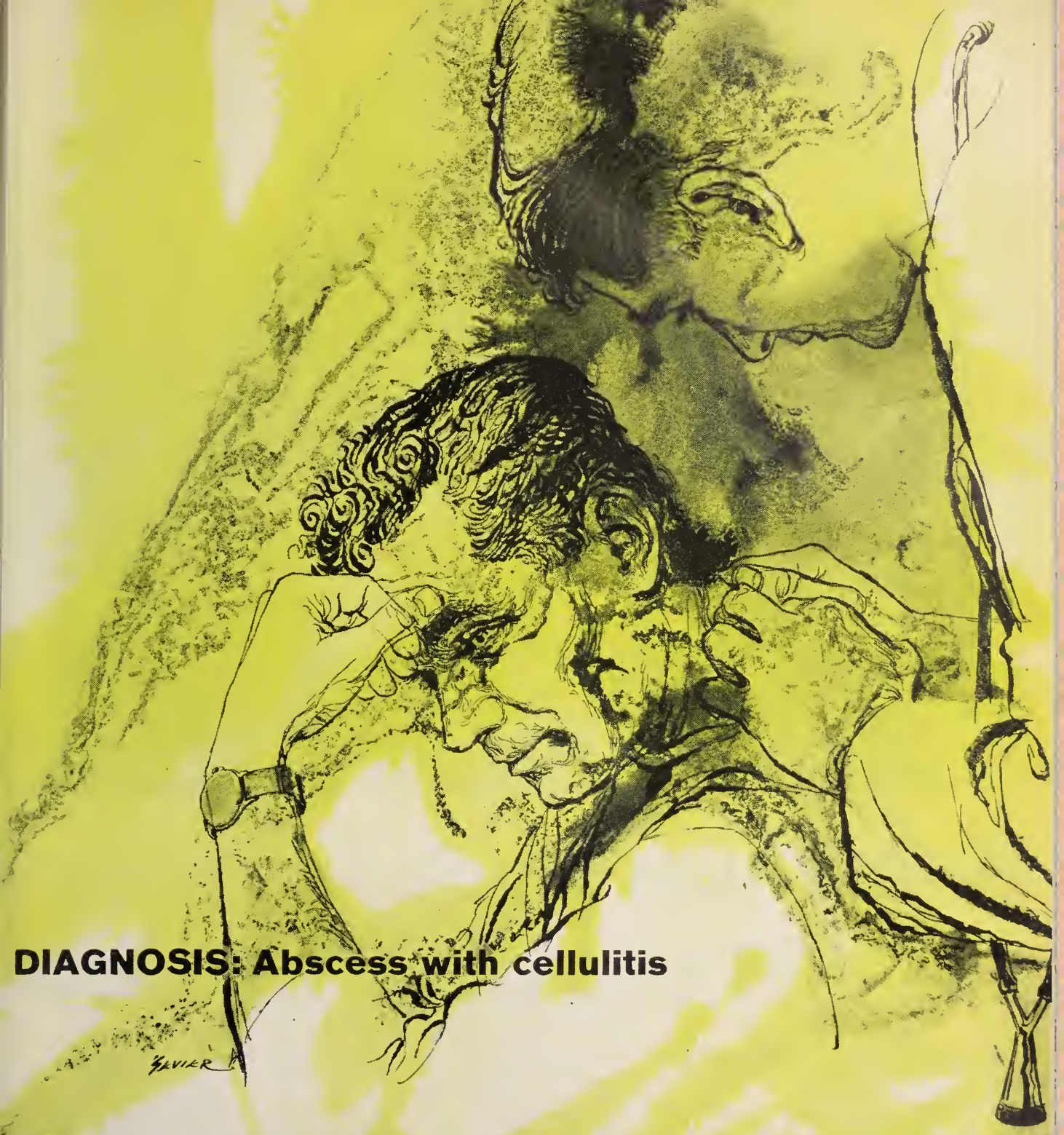
1. Kolodny, A.L.: Dis. Nerv. System *22*:151 (Mar.) 1961.

For prescribing information, please see *PDR* or available literature.

Smith Kline & French Laboratories, Philadelphia
leaders in psychopharmaceutical research

SK&F





DIAGNOSIS: Abscess with cellulitis

THERAPEUTIC NEED: Suppression of the causative organisms and drainage.

ANTIBIOTIC: DECLOMYCIN®

Demethylchlortetracycline Lederle

because it has been proved clinically effective in abscess and other soft-tissue infections.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department

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Lederle

Photographs courtesy of R. H. Grekin, M.D.

Nummular eczema



Nummular eczema on the left hand of a 20-year-old female. Therapy with 0.25% Neo-Medrol Acetate, Veriderm produced this result in only 5 days.



5 days ater



The topical steroid with the "bonus" base

Neo-Medrol Acetate, Veriderm and Medrol Acetate, Veriderm provide prompt, highly-efficient control of dermatoses. Because the Veriderm base duplicates the oils found in normal human skin, there is optimal dispersion of the anti-inflammatory Medrol content, and the antibiotic, neomycin.

Less greasy than ointment, less drying than lotion, Neo-Medrol Acetate, Veriderm and Medrol Acetate, Veriderm spread evenly and merge well with the tissues.

Medrol Acetate, Veriderm is indicated in atopic, contact, or seborrheic dermatitis, and in neurodermatitis, anogenital and allergic pruritus. Neo-Medrol Acetate, Veriderm is indicated when dermatoses are complicated by infection. Prompt control of excessive tissue reaction to allergens, irritants, and trauma may be anticipated following the topical use of Medrol.

Neo-Medrol* **Veriderm****
Acetate

The Upjohn Company, Kalamazoo, Michigan **Upjohn**

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(Reminder advertisement. Please see package insert for detailed product information.)



Kills pain.....stops tension

For neuralgias, dysmenorrhea, upper respiratory distress, and postsurgical conditions—new compound of Soma, phenacetin and caffeine kills pain, stops tension, reduces fever—gives more complete relief than other analgesics . . . acts fast, relief lasts four to six hours

Composition: 200 mg. Soma (carisoprodol), 160 mg. phenacetin, 32 mg. caffeine. **Dosage:** 1 or 2 tablets q.i.d. **Supplied:** Bottles of 50 apricot-colored, scored tablets.

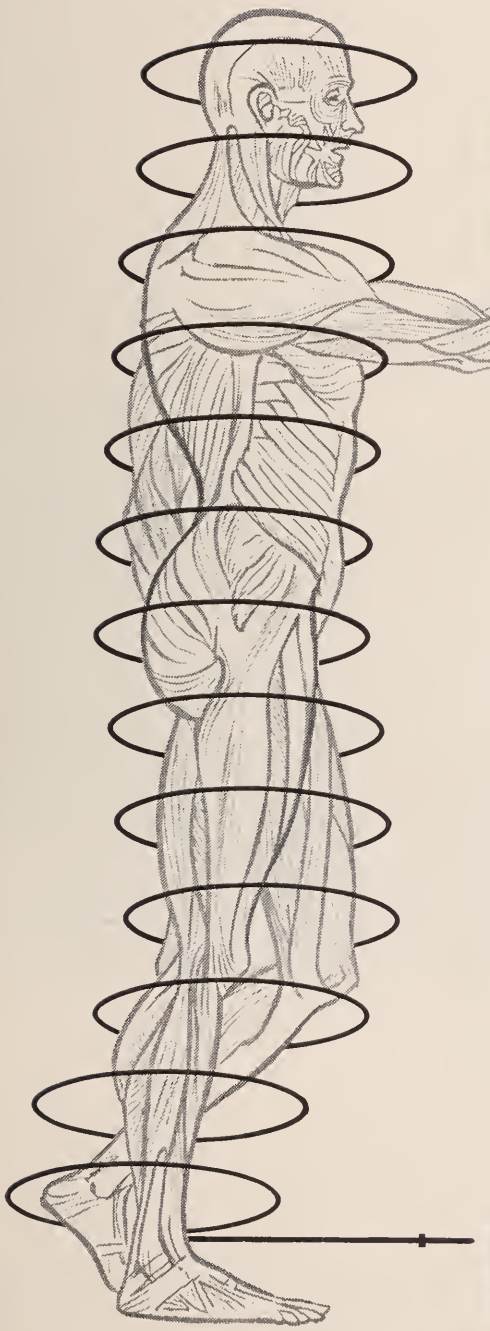
Also Available As
SOMA COMPOUND + CODEINE

Soma Compound boosts the effectiveness of codeine. SOMA COMPOUND + CODEINE therefore contains only ¼ grain of codeine phosphate to relieve the more severe pain that usually requires ½ grain. Otherwise, its composition—and dosage—is the same as Soma Compound. Supplied in bottles of 50 white, lozenge-shaped tablets.

soma® Compound

CSO-5169

WALLACE LABORATORIES/Cranbury, N.J.



Now available. After 3½ years of intensive clinical testing at one of the country's leading research centers,* Hemathermatrol announces a major

breakthrough in hypothermia

The system is called TEMTROL. Through a unique computer system it can provide a degree of accuracy, speed and versatility in achieving clinical hypothermia never before possible. Here is a brief on its capabilities. *VERSATILE*—A variety of ancillary attachments permit one compact unit to produce all the requirements for gastric hypothermia, hypothermic amputation, differential cerebral hypothermia, extra-corporeal temperature control and other uses. *ACCURATE*—Exacting electronic control not only eliminates temperature drifts but will automatically maintain total body temperature, even on adults, within plus-minus 0.5° F of desired temperature. *FAST*—Under normal conditions the unit will reduce the temperature of a 70 kilo patient 10° F in 1½ hours. *COMPLETELY AUTOMATIC*—TEMTROL follows the patient's temperature by anticipating and computing rate of change to maintain temperature at predetermined level.

We invite you to write for literature describing the TEMTROL system in detail and offering an unusual 21 day trial in your hospital or clinic.

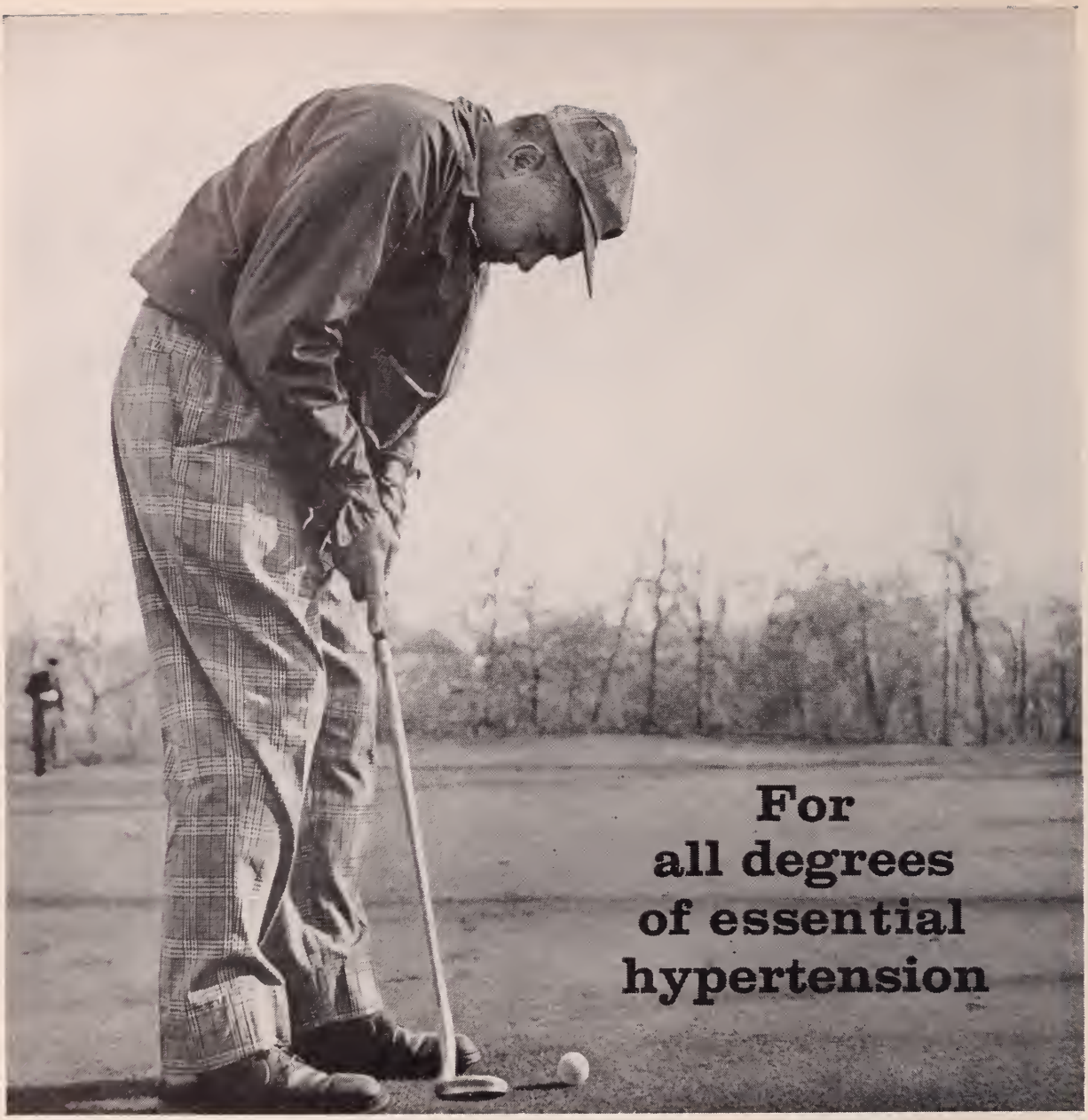
*Clinical data on request

The Union of Engineering and Medical Sciences

hemathermatrol corporation

1424 N. Pennsylvania St. • Indianapolis 2, Indiana

Witness a demonstration of TEMTROL at our Booth 81 during the A.S.A. Annual Meeting, October 22-26, Statler Hilton Hotel, New York City.



"relief of symptoms is striking with Rautrax-N"†

Rautrax-N decreases blood pressure for almost all patients with mild, moderate or severe essential hypertension. Rautrax-N also offers a new sense of relaxation and well-being in hypertension complicated by anxiety and tension. And in essential hypertension with edema and/or congestive heart failure, Rautrax-N achieves diuresis of sodium and chloride with minimal effects on potassium and other electrolytes.

Rautrax-N combines Raudixin (antihypertensive-tranquilizer) with Naturetin c̄ K (antihypertensive-diuretic) for greater antihypertensive effect and greater effectiveness in relief of hypertensive symptoms than produced by either component alone. Rautrax-N is also flexible (may be prescribed in place of Raudixin or Naturetin c̄ K) and economical (only 1 or 2 tablets for maintenance in most patients).

Supply: Rautrax-N — capsule-shaped tablets providing 50 mg. Raudixin, 4 mg. Naturetin and 400 mg. potassium chloride. *Rautrax-N Modified* — capsule-shaped tablets providing 50 mg. Raudixin, 2 mg. Naturetin and 400 mg. potassium chloride.

†Hutchison J. C.: Current Therap. Res. *2*:487 (Oct.) 1960.

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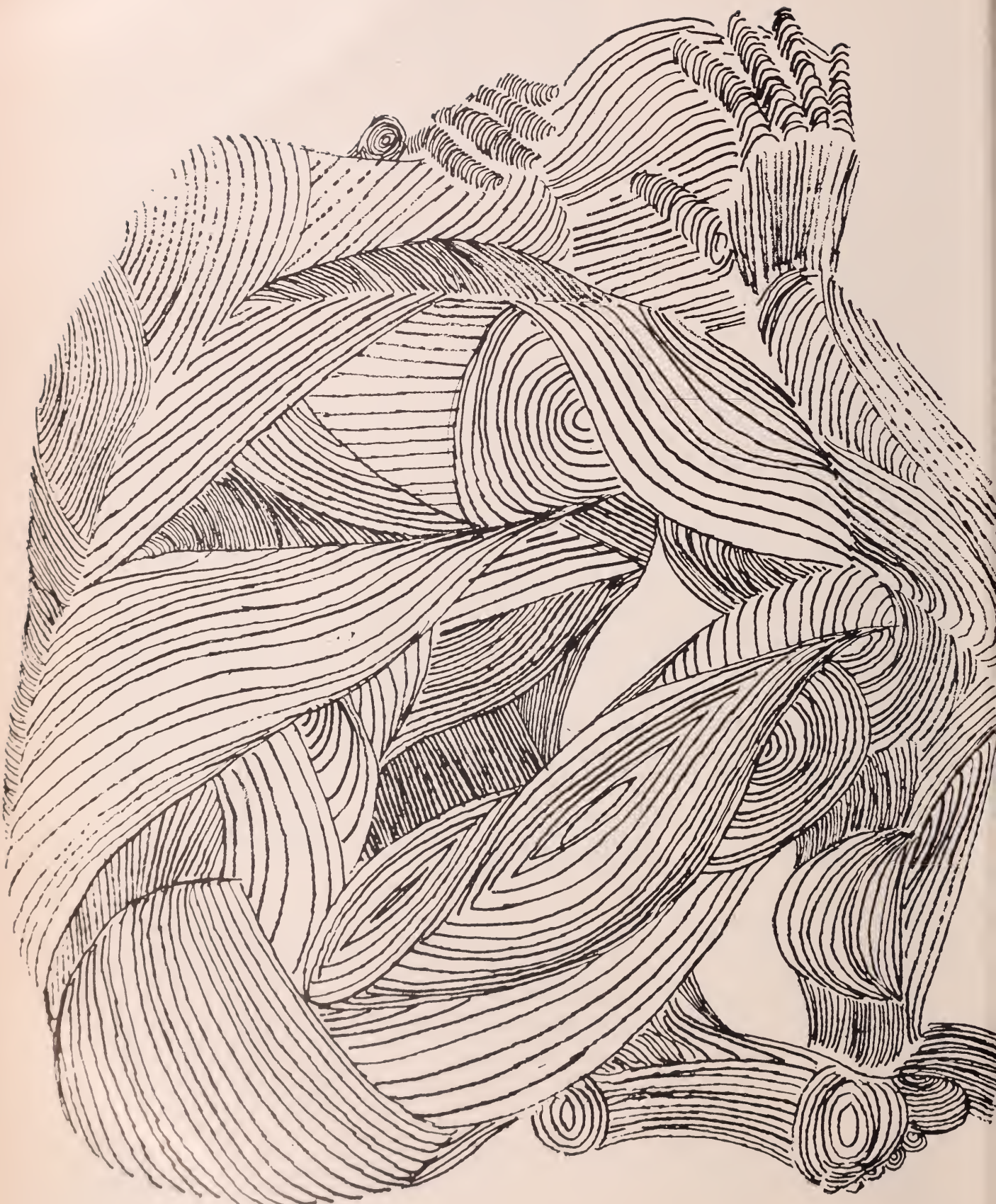
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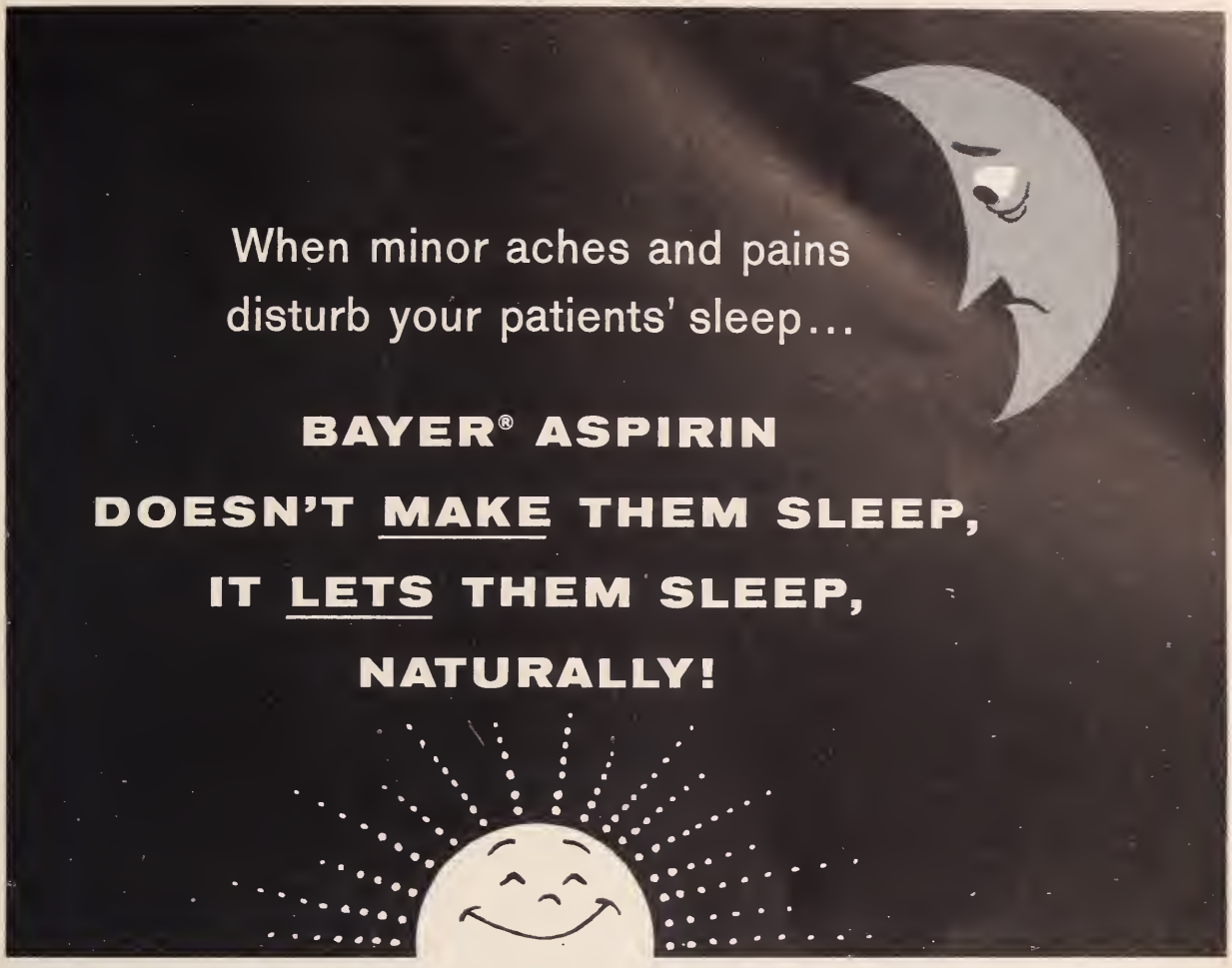
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1962 REPORT

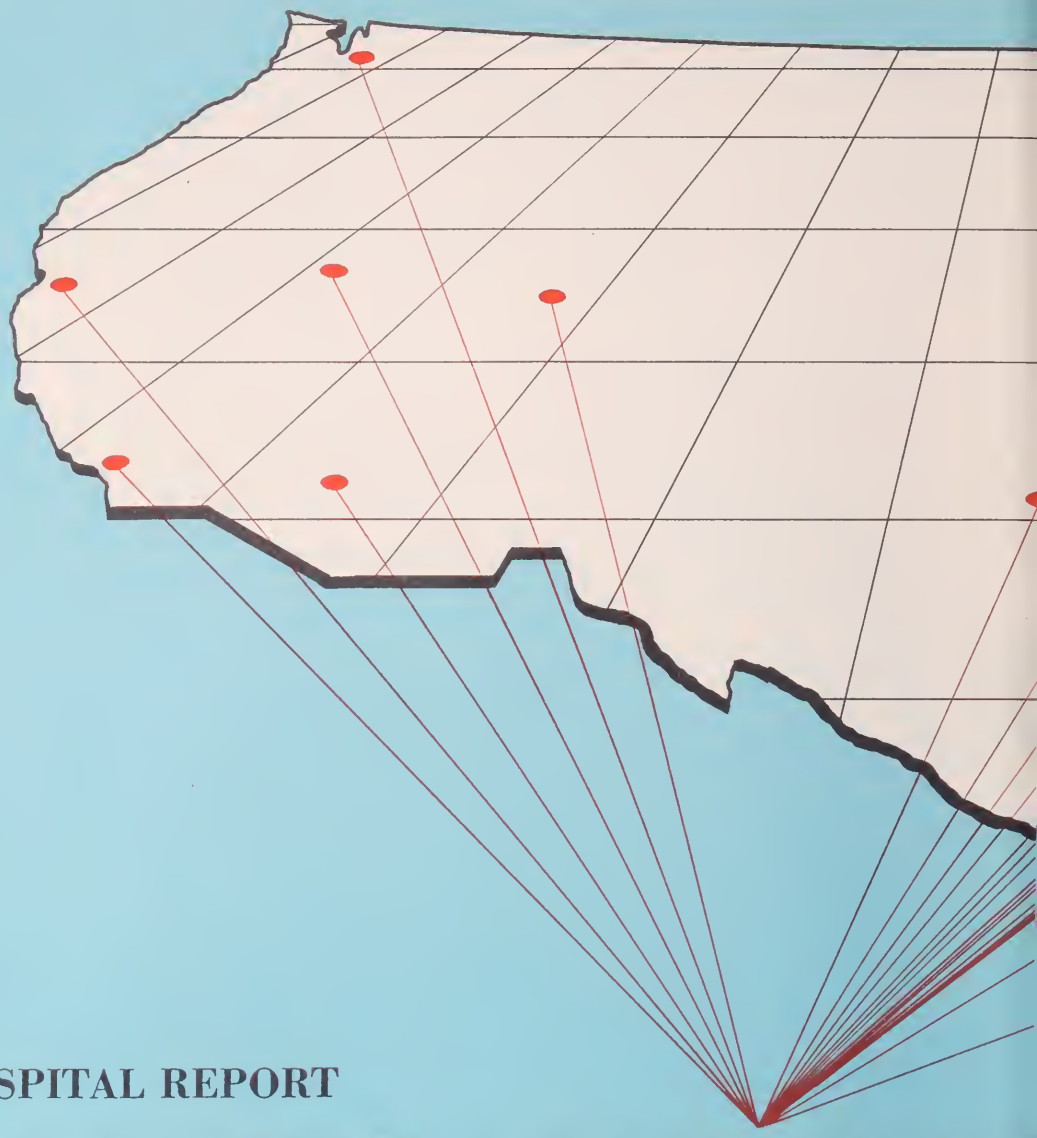
Nationwide hospital survey of bacterial susceptibility pattern in 9,872 cultures of common pathogenic bacteria isolated from patients

With each passing year, determination of antibiotic effectiveness becomes more critical, and shifting patterns of resistance emerge.

What is the *current* geographical status of *in vitro* bacterial susceptibility to antibiotics?

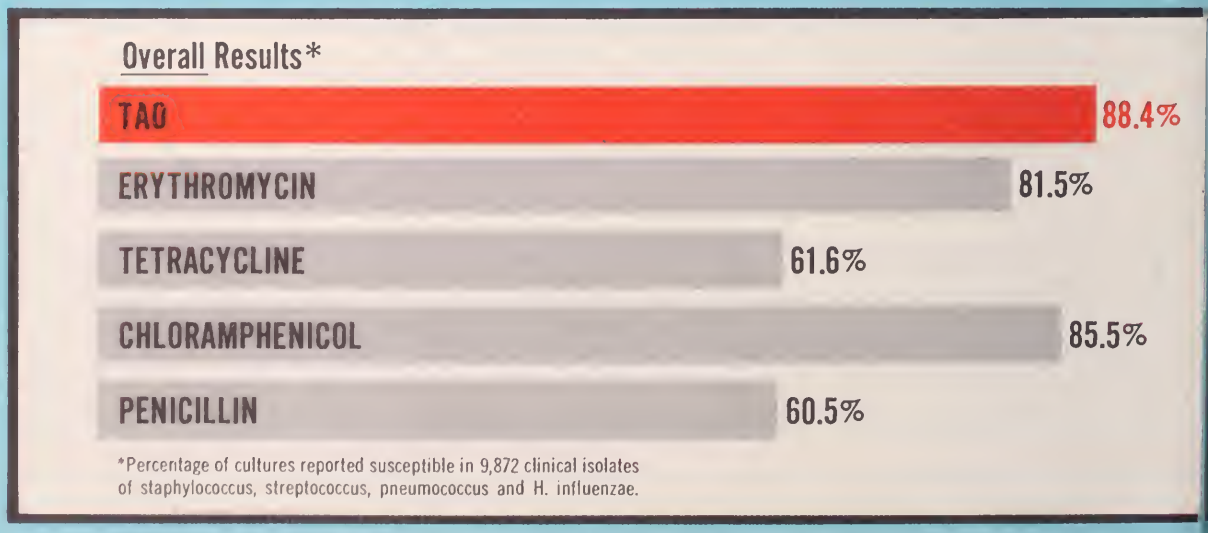
To get the answer, 23 geographically-dispersed hospitals contributed to a susceptibility survey. Each hospital supplied its own antibiotic sensitivity results which were then tabulated and statistically analyzed. The results of this unprecedented survey—covering five widely-used antibiotics against 9,872 pure cultures of common bacteria isolated from patients—are summarized on the next page.

CONCLUSION: **overall** results showed a higher percentage of bacterial susceptibility to TAO than to the other antibiotics tested. For the results with the specific bacteria see the following page.

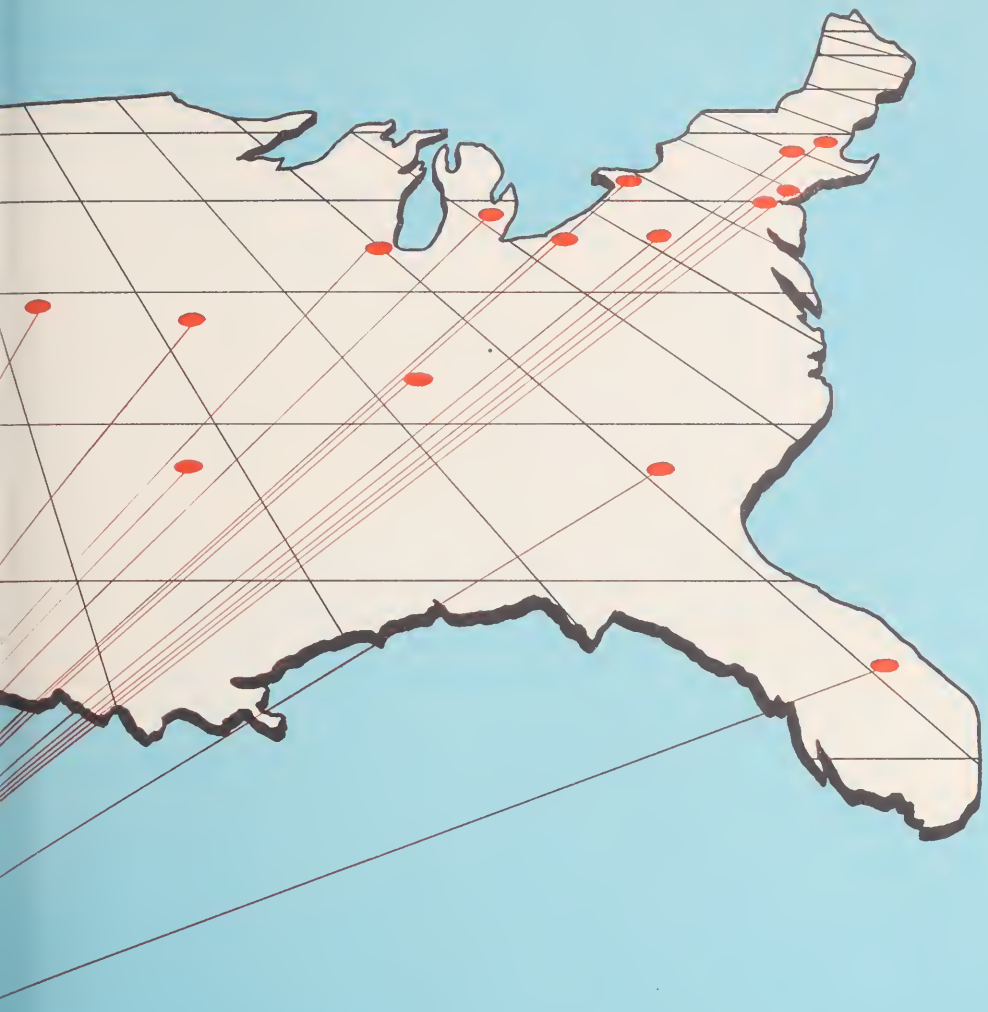


1962 HOSPITAL REPORT

RESULTS FROM A NATIONWIDE



Of 6,725 staphylococcal isolates tested TAO showed a clear superiority; of 2,488 streptococcal and 463 pneumococcal isolates tested results were about equal. Of 196 H. influenzae isolates tested TAO was less effective.



SURVEY OF ANTIBIOTICS

Staphylococcus, streptococcus, pneumococcus and H. influenzae isolated from patients were the organisms challenged by five widely used antibiotics. All the antibiotics have been in clinical use at least five years: penicillin, erythromycin, triacetyloleandomycin, tetracycline and chloramphenicol. Only results of susceptibility studies on pure cultures were considered valid; the disc testing technique was utilized.[1]

Active against common pathogenic bacteria. Even after five years of general use, triacetyloleandomycin (TAO) is highly active against common pathogens. For specific information on the many TAO dosage forms, its uses in acute pediatric, skin and soft tissue, and respiratory infections, turn the page.



1. "Bacterial Susceptibility Patterns: A Geographic Survey." Fowler, J. Ralph, M.D., and Watters, John L., M.D. Scientific Exhibit presented at the Annual Meeting of the American Society of Clinical Pathologists, Chicago, Ill., August 31 to September 8, 1962.



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Acute pediatric infections: particularly streptococcal.

Other acute genitourinary, gastrointestinal and miscellaneous infections: pyelonephritis, pyelitis, ureteritis, cystitis, urethritis (including gonococcal urethritis), acute salpingitis, endometritis, bartholinitis, staphylococcal enterocolitis, osteomyelitis, septic arthritis.

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The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

Volume 122, No. 3 September, 1962

SYMPOSIUM ABSTRACTS

RECENT ADVANCES IN NEUROLOGY AND PSYCHIATRY

PAGES 238-249

Presented at the 122nd Annual Meeting, Illinois State Medical Society, May 14, 1962, Chicago.

MODERATOR: LOUIS D. BOSHES, M.D., *Chicago*

SYMPOSIUM ABSTRACT

Child Psychiatry

Charles L. Block, M.D., *Chicago*

No Longer Can One Make a Diagnosis of mental deficiency per se, since psychoneurosis, psychosis or organic illness may produce a picture of mental deficiency. Organic brain damage today is no longer a matter of gross neurologic defect but may appear as subtle defects, e.g., perceptual handicaps. These cannot be detected by usual neurologic examination but nonetheless may be responsible for behavior and learning problems.

Psychosis in childhood, because it presents a different picture than psychosis in adolescence and adulthood, often goes undiagnosed — some physicians preferring automatically to blame "organic damage." Today, however, we must consider a psychosis an abnormal pattern of behavior in response to stress, which may be hereditary, biochemical, maturational, psychologic or any combination thereof. Too often the physician has his pet beliefs and fails to consider the other possibilities and integrate them into the etiologic picture. Yet psychosis must be differentiated from organic damage and primary mental retardation.

Repetitive or compulsive motor behavior and withdrawal represents the most evident features of childhood psychosis; hallucinations, delusions and deterioration are not seen (hallucinations are not even necessarily pathognomonic of disease in children). The absence of withdrawal and the presence of almost incessant impulsivity serve to identify the brain-damaged from the psychotic child. The former also differentiates the retarded from the psychotic child. The separation of mother and child for a certain time at various stages of psychosocial development may produce significant depression of clinical degree in infants and children. Frequent changes of the "mothering figure" has its untoward effect on psychosocial development too, so that today child psychiatry advises that an infant should be preferably placed in a good foster home rather than a good foundling home or orphanage.

Treatment of psychotic children need not be hopeless nor carried out in an institution. Selected cases have been treated intensively on an outpatient basis. If institutionalization is necessary, the children should be placed in separate facilities, not housed with adult patients.

Since psychosis in adolescence is quite similar to that in adults, no special comment is necessary except perhaps one: withdrawal and poor school performance may be premonitary or early symptoms of adolescent psychosis and therefore should not be dismissed lightly.

Learning problems may be manifestations of specific organic and/or psychiatric illness, or of more general ones; they may be the outcome of educational malpractice. Only careful consideration of all those factors will clarify the cause so that appropriate medical and/or educational remedies can be started.

Another school problem is that of school phobia (reluctance to go to school due to overwhelming anxiety). These children willingly try to keep up with classwork, and this differentiates them from the truant. The overwhelming anxiety arises out of the fear of separation from the mother. Forcing the child back to school should not be the therapeutic goal; rather, resolve the fear. Usually treatment of the mother is necessary along with

Northwestern University Medical School, Evanston Hospital.

treatment of the child.

While there have been no recent advances in the field of child psychiatry regarding enuresis (its etiology having been already well-known), it seems that that knowledge is not generally known. Unfortunately, some physicians use electrical gadgets (remnants of medieval torture devices ! ! !)which are supposed to "condition" the child. It is for medical science to recognize medical illness and treat the illness not just the symptom.

The psychiatric aspects in asthma, ulcers, diabetes, epilepsy, hypertension and the other so-called psychosomatic disorders have been one of the great contributions of American medicine. Their application to children is equally valid and worth mentioning. Essentially the psychiatric aspects are the same whether the patient be a child or adult.

While the above is far from complete and comprehensive, it is hoped that it has stimulated some thought along child psychiatric lines.

SYMPOSIUM ABSTRACT

Adult Psychiatry—Newer Drugs

Jackson A. Smith, M.D., *Chicago*

To Appraise the Effectiveness of New Compounds recommended for psychiatric patients is not an easy task, because of the lack of objective measures of improvement in the emotionally ill. Too, dynamic psychiatry does not have a tradition of collecting and recording data which lends itself to statistical evaluation. As a result new products are frequently introduced with great enthusiasm. If these impressions are substantiated the new drug passes into the obscurity of routine use; if it is ineffective, it is quietly discarded.

The "newer drugs" in psychiatry are primarily the tranquilizers, the skeletal muscle relaxants, and the so-called psychic energizers. The tranquilizers seem destined to survive and they have already prospered. The energizers, however, have shown a certain anergic hue during the past couple of years. The skeletal muscle relaxants as a group probably make up the most of the recently introduced compounds.

Before discussing these groups, one first might consider the number of different compounds in each. There are 33 available tranquilizers, including 15 phenothiazine derivatives, four Rauwolfia alkaloids, and 14 skeletal muscle relaxants. In addition, there are 14 psychic energizers available.

The antidepressives include four compounds which cause monoamine oxidase inhibition. Three of these inhibitors are hydrazines and one a nonhydrazine. The remainder consists of three amphetamine and seven other compounds of diverse structure. All of these drugs purportedly stimulate, energize or in some manner increase the energy output and improve the patient's mood.

University of Chicago School of Medicine, Illinois State Psychiatric Institute.

Mode of Action of the Newer Drugs

The potent tranquilizers: The tranquilizers (phenothiazines and Rauwolfia alkaloids) tend to reduce the patient's response to internal and external confidence. They decrease concern without producing euphoria or increased self-stimuli.

Unlike the sedatives which were available earlier, the tranquilizers do not produce ataxia, anesthesia, excitement or any pronounced tendency to addiction. They also differ in that they increase muscle tone and lower the seizure threshold. Although the phenothiazines and Rauwolfia alkaloids differ markedly in chemical

structure, their clinical and side effects are similar.

The "mild" tranquilizers: The group of compounds variously referred to as skeletal muscle relaxants or "mild tranquilizers" have little in common except that they are recommended for the relief of anxiety. The nonspecific nature of the actions of some of these relaxing compounds is best shown by the fact that two members of this group, benactyzine and meprobamate, when taken at the same time, do not become a more potent tranquilizer — they become an energizer! This is indeed a miracle drug, or at least a miracle, since the results are comparable to combining a bromide and a barbiturate and getting a stimulant.

Clinical Differences

There are certain categorical similarities between three groups of newer drugs, e.g., they all act to relieve symptoms and they do not alter causes. Too, the greatest variations in the members of the different groups, whether they be tranquilizers, skeletal muscle relaxants or antidepressives, is in their potency and the nature and the severity of the side effects they produce.

The differences in the 15 available phenothiazine derivatives are more evident in their chemical structure and in their effects on animals than clinically. The fact that one phenothiazine lowers the body temperature in rats or antagonizes the "waltzing syndrome" in mice, more than another, is of minimal clinical interest. On the other hand, reports that one phenothiazine causes less Parkinsonism, jaundice and photosensitivity than another is meaningful to the practitioner in prescribing these compounds.

However, if a patient fails to respond to one potent phenothiazine, it is unlikely that he would benefit from another similar-acting compound with a different name. The evidence of specificity among these compounds is scanty. Clinically, the differences in the Rauwolfia alkaloids are also minor. Among the potent phenothiazines, chlorpromazine (Thorazine®) and thioridazine (Mellaril®) continue to be favorably reported. Chlordiazepoxide (Librium®) and hydroxyphenamate (Listica®) are new mild tranquilizers that have been enthusiastically received.

Among the antidepressives, amitriptyline (Elavil®), tranylcypromine (Parnate®) and imipramine (Tofranil®) have few reported serious side effects. The hydrazine antidepressives (Marplan,® Niamid® and Nardil®) are contraindicated in patients with a history of liver disease. A severe toxic hepatitis may occur in patients receiving hydrazines; liver function should be closely observed in those for whom these compounds are prescribed.

In considering newer drugs in the treatment of depression, it should be recalled that we do not yet have a compound as effective as electroconvulsive therapy for the treatment of the psychotically depressed. The antidepressives are not less empiric than electroshock treatment, but they are less rapid in their action.

Summary

One of the more encouraging aspects of these newer compounds, only three of which were in existence 10 years ago, is that they represent a continuing search for products with greater potency and fewer side effects. Even if there were a hundred similar compounds on the market, the need for specific treatment would certainly be no less. It is mere chance that the most effective treatments in psychiatry have been for illnesses of known etiology. When the relationship between the spirochete and paresis and between nicotinic acid and pellagra were established, the problems these afflictions presented were in the process of becoming answerable. Nevertheless, it is essential that the search for new compounds continues during the interval of our etiologic ignorance.

Adult Neurology

Robert L. Tentler, M.D., *Chicago*

The Treatment of Neurologic Entities is becoming more varied and definite; e.g., Parkinson's disease is now a surgically treated syndrome, pain syndromes are amenable to medical treatment, etc.

Parkinson's disease has been the subject of intensive study with the advent of surgical treatment. Various sites in the basal ganglia have been approached with inconsistent results. However, some cases have shown spectacular response. The ideal case is the patient who is vigorous (not in the arteriosclerotic age group) with unilateral hemi-Parkinson's disease. Strict contraindications for surgical treatment are:

1. Advanced state of Parkinson's disease.
2. Chronic fatigue or akinesia.
3. Signs of cerebral arteriosclerosis with mental deterioration.

Recently, authors have attributed the majority of present-day Parkinson's disease patients to the 1916-1920 encephalitis epidemic. However, Parkinson's disease has been seen without encephalitis and the three categories — paralysis agitans, arteriosclerotic-and-post-encephalitis, are still valid.

The commonest cause of present-day Parkinson's syndrome is the phenothiazine group of tranquilizers. These may produce the typical facies, rigidity, tremor and gait disturbance. Much more alarming symptoms of dystonia and oculogyric crises also occur. Immediate recovery may be induced with intravenous benztropine methanesulfonate (Cogentin®) 2 mg., or diphenhydramine (Benadryl®) 50 mg. The phenothiazine drugs should then be discontinued.

Trigeminal neuralgia has been unsuccessfully treated by medical management, in spite of claims for vitamin B_{12} injections, ethyl chloride inhalations and narcotics. Sodium Dilantin in heavy dosage has given marked relief of symptoms in a considerable percentage of patients for variable lengths of time up to six to eight months. Precautions for Dilantin intoxication must be observed.

Pain in the upper extremity may be due to cervical disk or thoracic outlet syndrome. When the pain is complicated by spinal cord symptoms it is probably due to cervical spondylosis. This is a condition of extensive osteoarthritis and multiple disk degeneration in the cervical spine, with compression of cervical roots and cervical spinal cord. This may even simulate amyotrophic lateral sclerosis. Relief of symptoms may be obtained with cervical traction. Some patients require surgical intervention and decompression.

Pain in the hands, particularly thumb, index and middle fingers and adjacent palm may be due to median nerve compression at the wrist — carpal tunnel syndrome. Thickening of the transverse carpal ligament compresses the median nerve at the wrist, producing pain in the above distribution (that may be due to trauma, inflammatory disease, gout or acromegaly). Complete relief is obtained by section of the transverse carpal ligament.

Pain in the feet and hands, associated with weakness, sensory loss and absent reflexes are the signs of symptoms of peripheral neuropathy. In the absence of other causes (diabetes, alcohol, arsenic, porphyria, or vitamin deficiency) unsuspected malignancy must be considered. Removal of the malignancy may cause remission of the peripheral neuritis. Similarly, proximal myopathy or polmyositis simulating muscular dystrophy may be associated with undiagnosed malignant tumor. Both peripheral neuropathy and proximal myopathy appear to be a nonspecific reaction to malignant disease.

The prevention of cerebral thrombosis has

Stritch School of Medicine, Loyola University Loretto Hospital.

been a vexing problem with partial prophylaxis obtained with anticoagulants. Recent investigations have shown that many causes of stroke with hemiplegia are due to thrombosis in the neck, specifically the internal carotid artery at the common carotid bifurcation. Easy access has made surgical intervention possible in the form of carotid endarterectomy or replacement by graft.

Attacks of vertigo, dim vision and transitory neurologic symptoms are now attributed to arteriosclerosis of the vertebrobasilar arteries with intermittent brain stem ischemia. The treatment has been primarily with anticoagulants, with a few successful surgical attempts.

Tuberculous meningitis long has been a fatal disease regardless of treatment. However, with the advent of isoniazid, most patients recover. It is not necessary to give the medication by the intrathecal route and few patients develop resistance. Isoniazid itself may produce a severe peripheral neuritis which may be prevented or cured with pyridoxine (vitamin B_6).

Hereditary degenerative diseases of the nervous system are usually of unknown etiology with no known treatment. Hepatolenticular degeneration (Wilson's disease) is a familial degenerative disease of the brain, cerebellum and liver. It has been shown that it is due to an inability to form a copper-protein-hemoglobin molecule, the excess copper being distributed in the brain, cerebellum and reticulo-endothelial system. Chelating drugs, BAL and penicillamine have been effective in arresting or controlling the disease by causing increased copper excretion.

Familial periodic paralysis is an hereditary disease shown to be due to a sodium-potassium disturbance precipitated by ingestion of glucose. This causes a lowering of potassium levels in the plasma and the cell controlled by low-glucose diet and potassium supplements.

SYMPOSIUM ABSTRACT

Geriatrics

Jack Weinberg, M.D., *Chicago*

The Pressure on Social Agencies and the psychiatrists for answers to the problems of old age make for hasty assumptions which much too often cannot be validated. For this reason it is necessary to formulate certain operational concepts which may be of help to workers in the field.

It is generally agreed that in the life span of the individual aging is one of the developmental phases. Developmental in the sense that it is not a static phenomenon which comes at the end of the organism's existence but rather a fluid state influenced by one's physiology, psychology and their economics and the socio-economic and cultural environment in which it lives and whose attitudes the organism embraces, applies to itself and reacts to accordingly. The above-mentioned variables bring the aging process at varying rates and in a varying way to different individuals regardless of their chronologic years.

Certainly many of the changes which take place in old age are decrements in physiologic capacity and function. To master the threat of dissolution of the personality and consequent loss of identity, the individual responds with a number of maneuvers to retain mastery over the environment. These are expressed in terms of neurotic, psychosomatic and psychiatric symp-

University of Illinois College of Medicine, Michael Reese Hospital and Medical Center.

toms — for the latter are not only indications of danger but are by their very nature also protective devices.

Defensive maneuvers on the part of the personality in later life are 1) exclusion of stimuli, 2) conservation of energy, and 3) regressive maneuvers. All of these bespeak a dynamic process and therefore indicate reversible possibilities for what might seem to be static and fixed results. Then too, many aging persons present a little-recognized phenomenon of what one may call a gradual disengagement from the dynamic life processes. There is a withdrawal of feelings for, and investment in, meaningful objects in the environment; a loss of interest in life; a mounting preoccupation with the self and the inner painful stimuli; and an overwhelming wish for the termination of life. By this disengagement from life the individual behaves as if he is preparing himself for the final isolation and death. This may be a normal defense in a waning economy of energy, rather than a pathologic process.

The physician treating the aged must differentiate between pathologic and so-called normal defense in later life if his therapeutic efforts are to be effective. Furthermore, remedial methods demand a broad program of gearing not only our economy but also our social life to meet the needs of the ever-increasing population of the aged. Psychiatrically, a great deal is being done; the old concept that the aged are beyond the help of psychotherapy is being revised in the light of recent successful therapeutic efforts.

SYMPOSIUM ABSTRACT

Neurosurgery

Milton Tinsley, M.D., *Chicago*

Among the Newer Developments in the field of neurosurgery, the most gratifying and the most difficult is the approach to the intracranial cerebral aneurysm. The mortality and morbidity rate in cerebral aneurysms has been very high; until we developed the injection of dye into the carotid arteries allowing for visualization of these aneurysms, they were impossible to localize.

Improvement in technique and ability to expose and remove intracranial cerebral aneurysms has been facilitated by the use of hypothermia and extracorporeal circulation, allowing for a completely dry field for as long as one-half hour. A dry field is necessary in the small area which one can produce in exposing these aneurysms. The hypothermia allows for long periods of almost completely avascular brain. Too frequently the aneurysms, being very thin-walled, have ruptured in the face of the operator during his approach. The bleeding that ensued was almost impossible to control. With the advent of hypothermia and extracorporeal circulation, this danger has been obviated.

Recently, a newer technique has been used in which the aneurysm can be coated with a plastic material producing a hard, adherent shell on the outer wall of the aneurysm thus preventing further hemorrhage. The hard shell can withstand very high pressures before it will rupture, much higher than normal or even abnormal blood pressure. This method is of greatest use where removal of the aneurysm will interrupt vital blood supply to the brain and

Chicago Medical School, Michael Reese Hospital and Medical Center.

thus produce permanent physical disability or even death. Still another advance is a plastic adhesive material which will cover a defect in a blood vessel. This material is used on the vessel. It has to be dried, after which a piece of dura is put on as a patch. Additional plastic material is then applied, fixing the patch to the wall of the blood vessel and sealing off the hole in the blood vessel.

Further advances have been made in the treatment of spasticity or abnormal movements by the advent of the sterotactic approach to the brain with destructive lesions to vital nuclei. The destruction of these nuclei has resulted in marked alleviation in Parkinson's disease, cerebral spastics, and even in the spastic paraplegias of multiple sclerosis. It is now possible to differentiate specifically nuclei for tremor and for spasticity.

The advent of urea as a rapid dehydrating agent for increased intracranial pressure has facilitated the approach to tumors and to aneurysms and to various areas of the brain which otherwise would be inaccessible. A newly developed but very complicated apparatus for the use of ultrasonic approach to the brain is the ultrasonic machine, which can pinpoint lesions in the brain and has also been used to identify the presence of space-occupying lesions. Unfortunately this machine necessitates a large staff of technicians, including physicists and electronic engineers. The apparatus itself is very costly and investigative work of its uses is limited.

Hydrocephalus always has been a difficult condition to alleviate. The development of new valves now allows for ventriculo-jugular shunts in the communicating hydrocephalus. This recirculates the ventricular fluid, obviates infection and is physiological. Two types of valves, the Pudenze and the Holter, are perfected.

SYMPOSIUM ABSTRACT

Newer Drugs and the Nervous System

Louis D. Boshes, M.D., *Chicago*

In Discussing Newer Drugs and the Nervous System it would be helpful and practical to discuss 1) only those which are still experimental and not yet released for general use and 2) those which have recently been made available and although not known too well show considerable promise. These will be reviewed according to the following indications:

Fungus Diseases of the Central Nervous System

Heretofore drugs used for management of these diseases included sulfonamides, penicillin, stibamadine, acidione and antibiotic cycloheximide, mysteclin, nystatin, mycostatin, streptomycin, steroids, arsphenomine, sodium iodide, vitamins, hormones, blood transfusions, etc. However, amphotericin B, a polyene antifungal-antibiotic isolated in 1955 is the only broad spectrum antifungal agent currently available for treatment of systemic mycotic infections of humans. It has been the most effective in the treatment of histoplasmosis, North American blastomycosis, coccidioidomycosis, cryptococcosis and specific candida infections. In addition, isolated cases of South American blastomycosis, aspergillosis, sporotrichosis, mucormycosis and chromblastomycosis have responded favorably.

Northwestern University Medical School, Michael Reese Hospital and Medical Center.

Collagen Diseases of the Nervous System

Until the steroids were first employed in the management of the collagen diseases, antibiotics, testosterone, para-aminobenzoic acid, vitamins, etc. were the treatment of choice. Cortisone was first used for the management in 1948, and at the present time hydrocortisone, prednisone, and ACTH are of some value even though the effect is symptomatic and not curative. Numerous prolonged remissions have been induced with steroid therapy but occasionally relapses follow withdrawal of the hormone. Penicillin may be used therapeutically on an empiric ground with ACTH in some chronic cases.

Convulsant States

It was in 1857 that bromides were first introduced as the specific drug for the management of epilepsy. The next breakthrough occurred in 1912, when phenobarbital was brought into use. In 1938 Dilantin first appeared. Since that time many anticonvulsant medications have been developed, each more effective than the other. Eventually the ideal anticonvulsant will control all seizures and have no sedative or toxic effect. Some of the newer anticonvulsants include ethotoin (Peganone®) introduced in 1956 and ethosuximide (Zarontin®) particularly good in the management of resistant petit mal. The use of phenacemide (Phenurone®) has been revived for more active uses, especially in resistant psychomotor epilepsy. Acetazolamide (Diamox®) a carbonic anhydrase inhibitor originally used as a diuretic in the treatment of congestive heart failure, has anticonvulsant properties and seems to be especially effective in the management of the petit mal state. Even methaminodiazepoxide (Librium®) has definite anticonvulsant properties as shown by control of seizures and improvement in the EEG pattern. Although not as good as a combination of Dilantin and phenobarbital, it certainly can be used as an adjunct in the management of seizures.

Parkinson's Disease

Significant strides have been made in the medical management of Parkinson's disease in the past decades. Prior to World War I the armamentarium consisted of stramonium, belladonna and hyoscine. By the end of World War II several other solanacious products had appeared, including atropine 0.5 per cent, Rabellon, Vinobel and Bellabulgara. During the past ten years a great number of new synthetic compounds have been introduced, including such basic drugs as trihexphenidyl (Artane®), cycrimine (Pagitane®), procyclidine (Kemadrin®), benztropine (Cogentin®), orphenadrine (Disipal®), chlorphenoxamine (Phenoxene®), parsidol and modifying drugs such as diphenhydramine (Benadryl®), hyoscine and dextroamphetamine. Recently a sustained-release capsule of Artane has been developed for convenience of a once daily dosage. The dose is released gradually during the waking hours and tapers off in the evening and during sleep which is highly desirable. Analeptic drugs such as Metrazal®, Ritalin® and Niamid® offer psychomotor stimulation. Antidepressants which might be used in Parkinsonism include Tofranil® and Elaril and antiedema drugs such as Diamox®, Diuril® and Esidrix®. Reports that tolbutamide, an antidiabetic agent, is effective against tremor has not been substantiated.

Myasthenia Gravis

New and specific drugs are the anticholinesterase group. By reducing the activity of the cholinesterase they decrease the destruction of acetylcholine, leaving more of it to act upon the muscle membranes. Thus, the so-called competition block is defeated to a greater or lesser degree. Three drugs used for this purpose include neostigmine bromide, mestinon bromide, and mytelase chloride. Prostigmine is now packaged in fluid for intramuscular injections and Mestinon Bromide is now available in time-span tablets for more sustained action. These drugs help to correct the defects of the myoneural juncture but not to the degree of spontaneous remission. Adjuvant drugs still include ephedrine sulfate, guanidine hydrochloride, potassium urecholine, acetylcholine, glutamic acid and glycocyamine. The use of "nerve drugs" in this illness has been discontinued.

Meningitis

Management still involves the priming combination blitz of sulphadiazine, Chloromycetin and penicillin. Prognosis in tuberculous meningitis has not been seen to be affected by dropping the use of intrathecal streptomycin or by adding steroids. INH seems still to be the anchor of treatment.

Hepato-Lenticular Degeneration (Wilson's Disease)

This illness is characterized by lenticular degeneration together with cirrhosis of the liver and is familial. Modern rationale of therapy for Wilson's disease is directed at eliminating from the body the excessive copper already deposited and to prevent its re-accumulation. For the first aim one uses the following chelating agents: BAL, Versene, Sequestrene and Nullapon and now, DL Penicillamine. The last is the drug of choice, evoking an initial pronounced cupriuresis. Prolonged treatment results in improvement of the neurologic condition but the change in hepatic function is variable.

Guillain-Barre Syndrome

This syndrome is one of paralysis of peripheral musculature or can be better described as an acute polyradiculoneuropathy characterized by a progressive motor and sensory disturbance of cranial and spinal fluid. Although this illness was once considered as relatively benign, fatalities are being reported. In the past, treatment was supportative and symptomatic consisting of large doses of vitamin B complex, prostigmine, vitamin B_{12} or BAL which is demercaprol (a British-antilewisite). However, the use of ACTH and or cortisone is now the management of choice.

Headaches

Treatment of headache is made difficult by the fact that one is dealing with a symptom which may occur in almost any organic or psychogenic disturbance. Therefore one can expect to use every type of drug to be directed toward the management of the headache, particularly when some specific etiology is involved. Included are antipyretics, analgesics, addicting or opiating analgesics, hypnotics, sedatives, tranquilizing agents, central-acting skeletal muscle relaxants, anticonvulsants, vasodilators, cholinergic drugs, antihistamines, etc. Recently a new drug with promise has been introduced. It is named "Sansert" (UML-491) an antagonist of serotonin for it is a lysergic acid derivative which inhibits or blocks the effects of serotonin better than any presently available compound. This drug is geared especially to prevent vascular headaches and may even modify the vascular crisis triggering a migraine attack.

Multiple Sclerosis

No new or specific treatment has appeared in the recent past directed toward the symptoms of this illness. Management still consists of symptomatic, supportive, and even prophylactic measures. Vasodilators, antihistaminics, anticoagulants, vitamins, steroids, low fat diet, vaccines, neostigmine, curare, oral insulin and histamine all have not proven specific for the control of the symptoms. Any or all of these drugs have merit or lack of merit but one must remember the symptoms are being treated and not the disease itself. Psychotherapy is very valuable for those individuals with this chronic, depressive and debilitating illness.

Muscular Dystrophy and Musculo-Skeletal Disorders

Many new agents have appeared in the past several years recommended for the management of muscular dystrophy or of musculoskeletal disorders. Thus far it has been found that the principle value in acute, self-limiting, non-neurogenic conditions such as muscle strain. Among this group are included Miltown®, Trancopal®, Soma®, Trepidone®, etc.

Miscellaneous Drugs

There are many other new drugs of interest in the field of neurology but the range is limited and just a few will be mentioned in passing. In drug-induced coma, antagonists such

as Megimide®, Ritalin® and Emivan® have shown promise. A new osmotic diuretic called THAM® (tromethsmine) has been noted to be an excellent augmentor of renal elimination of pentobarbital. In hepatic coma, attempts to lower concentration of ammonia already in the systemic circulation are directed at hastening the metabolism of ammonia. Mild substances are administered for this purpose to include glutamic acid and aspartic acid which act in a similar fashion. Argine is also employed because it enhances formation of urca. Any of the drugs presently used in neuropsychopharmacology to include antidepressants, tranquilizers, preparation used in convulsive and other biological therapies, drugs used in the treatment of alcoholism, anti-epileptic drugs and other psychopharmacologic preparations used in allied fields have value in various aspects of neurologic illnesses. Drugs such as Monase® have demonstrated some value in the management of children with emotional and behaviorial disturbances coupled with organic changes. Polyfunctional alkylating agents such as nitrogen mustard and its derivatives have been used in the treatment neoplasms of the CNS.

SYMPOSIUM ABSTRACT

Liaison Psychiatry

Jerome S. Beigler, M.D., *Chicago*

Liaison Psychiatry Concerns the Services provided by a department of psychiatry in a general hospital to the other departments of that hospital. It includes not only the usual psychiatric consultation services, but also more specifically, assistance with practical measures in the management of non-psychiatric patients.

Recent advances in the management of general ward problems are illustrated by specific case histories. In one case, a 45-year-old woman with a recent coronary occlusion was not cooperative to her bed-rest regimen. A brief psychotherapeutic interview plus follow-up contacts enabled her to accept bed-rest. Two additional cases illustrate differences in management approach to apparently similar problems. Both cases were of middle-aged women with severe organic illness. Each presented her psychologic problem as an intense demand for attention. The question for personnel was: "How to respond?" In one case psychiatric interview revealed an incipient psychosis presenting itself as a hypochondriacal exaggeration of her symptoms. Psychiatric recommendation was to focus only on the organic aspects of her case, and to avoid allowing her to manipulate her environment. Undue attention to her somatic complaints would only fixate them. In contrast, the second woman proved to have a realistic anxiety to her problems and the recommendation was made to maximize interest and supportive care on the part of all personnel. In her case such interest would help shorten her hospital stay. Thus psychiatric interviews were used in the triaging of medical resources.

Another facet of liaison psychiatry concerns patients who refused to give permission for surgery. Psychiatric evaluation often elucidated the nature of their anxieties and eventuated in cooperation.

A considerable effort is expended in teaching the subtleties of a physician's self-respect and his respect for his patient. The clinical effective-

Michael Reese Hospital and Medical Center, Chicago.

ness of a doctor's professional approach is illustrated, as are the vicissitudes of a physician's reaction to his patients.

Another important problem lending itself to the interest of liaison psychiatry concerns the psychologic management of patients with fatal illness. During the past twelve years information has been culled from the literature, by questionnaire, by seminar discussion with clinicians of other specialties, and by clinical experience in a long series of cases. Most patients confronted with a fatal disease seem impelled to deny the seriousness of their illness, resorting to an intensification of denial mechanisms. If one listens to what a patient means rather than what he says, it becomes clear that most patients ask their physicians to help support their denials. It seems that only a small minority of patients have the psychologic stamina to confront their own demise. In our experience most patients do better if their physicians are able to support these denial mechanisms.

SYMPOSIUM ABSTRACT

Disaster Psychiatric Care

Harold M. Visotsky, M.D., *Chicago*

In All Disasters, Persons Are Involved in stresses of a severity and quality not encountered in everyday life. One of the most important components of disaster, from a psychologic point of view, is panic.

In group or individual panic the basic emotion is fear — a frantic effort to escape danger, real or imagined. There is a temporary disorganization of thinking and consciousness is usually clouded. Tension, accompanied by insecurity, increases the degree of panic. In a state of mass insecurity persons are susceptible to propaganda because there has been a weakening of the ego. Mass insecurity is pooled uncertainly together with individual inner-anxiety.

In disaster preparation, three significant points must be emphasized:

1. Planning for psychological aspects of reactions of citizens in emergency is as important as planning for their physical welfare.

2. Fear and excitement, in time of danger, may find expression in irrational behavior when preparation that takes such factors into account is lacking.

3. Only through becoming emotionally and psychologically involved in getting facts and in making individual decisions as to rules in disaster, will people develop the capacity to cope with emergencies.

Reactions to disaster include panic or blind flight, depressed or slowed down responses, overly active responses and bodily reactions.

Studies of disasters in Europe during the last war indicated that about one-quarter of the people involved reacted with blind panic flight, a half were confused, numbed and disorganized and only one-fourth showed the capacity to cope with the emergency. A further significant fact in regard to children was that the incidence of acute emotional experience increased in proportion to the incidence of emotional upset among their elders. Effective disaster preparation thus involves education of the community as a whole.

Programs for control and planning against disaster reactions are made difficult because of inertia and apathy which often stem from individual need to deny that which is frightening.

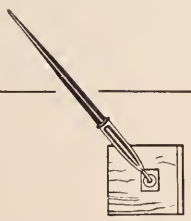
University of Illinois College of Medicine, Chicago Board of Health.

Psychologic planning, however, involves educating people to deal realistically with their feelings and preparing them to act rationally during a crisis. The possibility of panic will be minimized if they are well informed on what to expect and have an understanding of the psychological reactions to disaster. Fear of the unknown and rumor contribute to panic, but whenever critical ability functions, it is found to be complete insurance against panic behavior.

While there is no one major plan, preparedness for the emotional aspects of disaster has the same long-range pattern as preparedness for the inevitable crises of everyday living. A community that practices mental health in its major institutions, struggles to combat bigotry and lessen social tensions, understands and supports its mental health facilities and attempts to improve the quota of daily satisfaction for its residents is better able to cope with change and shock than the community that does none or few of these things.

An interest in the forwarding of the existent mental health programs of the community is the first and imperative prerequisite of a defense program that takes into consideration the emotional needs of people during a disaster.

Because there are common needs for security, confidence in self, adaptation to change and control of fear, education for mental health in a crisis is akin to and depends upon the education which prepares the individual to cope with the inevitable changes of his daily life.



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Rolling Pin Splint



Mark Greer, M.D., *Vandalia*

This splint was devised for traction purposes and comfort, especially femoral fractures in children from five to twelve years. I have had three femoral fracture cases in the past few months of ages five, eleven and twelve years of age. This splint has worked in excellent fashion with them. It can be used in certain other cases. I have had considerable trouble in getting the proper traction in these cases where I simply want to get pull enough to relax the thigh muscles and shorten the overriding of fragments both in transverse and spiral fractures. The Rolling Pin does not in any manner obstruct the pull. In fact we get a pull of almost 100% of the weight applied. This is not possible with wood or metal cross pieces attached to these splints. It is also very easy for these patients to pull themseleves up in bed. The adhesive applied to the leg and lower thigh is not attached to the splint. The splint acts only as a bed for the foot and lower leg and it can be tightened or loosened as desired. The rolling pin is the old fashioned pin used by housewives in rolling out dough and can be purchased in the hardware stores. This splint was made applicable by the engineer at the Fayette County Hospital. It is easily devised by placing the roller transversely under the splint and connected by a pin through the roller and a bar over it attached to the pin. It has been very serviceable to me in these cases and results have been excellent.

Afibrinogenemia in Pregnancy

JOHN H. RENDOK, M.D., *Springfield*

AFIBRINOGENEMIA IN PREGNANCY IS A WELL-RECOGNIZED DISORDER. The cause is not completely understood but a close relationship between excessive uterine contractility and afibrinogenemia which occurs most commonly in *abruptio placentae* is noted. There are two possible explanations for its cause:

1. Excessive contractions squeeze amniotic fluid, rich in thromboplastin, into maternal circulation, producing an amniotic fluid infusion which in turn produces intravascular clotting and defibrination of blood.

2. Excessive contractility produces some separation of the placenta which forces thromboplastin into the maternal circulation. Excessive contractility of the uterus is produced naturally in precipitate labor and *abruptio placentae* and can be produced artificially by oxytocics.

In addition to *abruptio placentae* as the most frequent offender, the occurrence of afibrinogenemia has been noted most frequently in postpartum hemorrhage, dead fetus syndrome, amniotic fluid embolism, retained placenta and placenta previa in that order.

A review of the results of the maternal death study in downstate Illinois (exclusive of Chicago) conducted by the Maternal Welfare Committee of the Illinois State Medical Society for a five-year period reveals that a total of 424 maternal deaths had been studied. Of this total 265 cases (62.5 per cent) were classified as due to obstetric causes. Obstetric hemorrhage is the leading cause of obstetric deaths occurring in 83 cases (31.3 per cent) and afibrinogenemia was definitely diagnosed in 19 cases (22.9 per cent).

There were other hemorrhage deaths in this series in which fibrinogenopenia or afibrinogenemia may have been present but were not diagnosed as such.

Of the 19 cases reviewed, nine occurred in *abruptio placentae* (two associated with toxemia), six in postpartum hemorrhage (two associated with retained placenta), dead fetus syndrome two, and placenta previa two. It is of interest to note that oxytocin (Pitocin®) was used in three apparently uncomplicated cases at time of administration for induction of stimulation of labor and amniotic fluid embolism was found in six cases on autopsy; four in conjunction with *abruptio placentae* and one each in dead fetus syndrome and postpartum hemorrhage.

Of particular interest was the fact that in a number of these cases the onset of shock was rather sudden though the blood loss was not excessive. In conjunction with this it seems significant that the blood hemoglobin was reported before or at onset of labor in only nine cases, and in six of these it was found to be less than 66 per cent.

More vigorous management of the complications of pregnancy with which fibrinogenopenia is associated may possibly have prevented death in some of these patients. Such management would include early typing and cross matching for transfusion if necessary; performing clot observation tests during labor and for 3-4 hours after termination of labor; establishing a dependable intravenous avenue and administration of whole blood to replace the estimated blood loss; and giving intravenous fibrinogen,

From the Bureau of Maternal and Child Health, Department of Preventive Medicine, Springfield, Illinois.

when indicated until blood clot is stable.

One of the simplest and most useful aids for diagnosis of fibrinogenopenia is the clot observation test by Weiner. A 5 ml. sample of maternal blood is placed in a 15 ml. test tube, gently agitated 4 to 5 times and then observed for clotting. The clotting mechanism is defective if no clot forms within six minutes.

In this series 13 patients had received fibrinogen in varying amounts from 1-20 gm., while 14 patients received over 5 units of whole blood. However, therapy was not started in the majority of these cases until the patient was in profound shock and the large amounts of blood and fibrinogen given were to no avail.

As a result of the study on afibrinogenemia the Maternal Welfare Committee believes that:

1. Closer attention be paid to prenatal and natal maternal blood hemoglobin levels.

2. Maternal blood be checked at frequent intervals for defect in clotting mechanism during labor and for 3 to 4 hours postpartum in complicated pregnancies with which fibrinogenopenia is associated.

3. An intravenous avenue be established and blood and fibrinogen be available without undue delay when indicated.

Law Threatens Medicine

Dr. David S. Rubsamen of San Francisco, a lawyer as well as an M.D., recalls a case decided by the California Supreme Court in the spring of 1959.

"The *Wolfsmith* case is famous among lawyers for good reason. It seems to say that a doctor can be found guilty no matter *what* he has to say for himself."

Mrs. Wolfsmith suffered a thrombophlebitis and ulceration following the injection of a local anesthetic into a small superficial vein. After a year and a half — and 55 days of hospitalization — the patient continued to have definite symptoms resulting from the original injury.

"In reversing a non-suit," Dr. Rubsamen declares, "the court stated that 'it is a matter of common knowledge among laymen that injections in the arm, as well as other portions of the body, do not ordinarily cause trouble unless unskillfully done or unless there is something wrong with the serum.' "

Can lawmen reliably decide that trouble following an injection — any injection — suggests negligence? Can laymen really know whether or not such injuries are rare? "Under California law, laymen are deciding these issues right now," says Dr. Rubsamen. And this is happening "in spite of universal recognition among MDs that unpredictable reactions can follow many kinds of injection procedures — no matter how skillful the physician may be."

If the attitude of the California courts is echoed in other states, physicians all over the country will have cause for grave concern, Dr. Rubsamen warns.

If doctors get the idea that they are being unfairly subjected to risks of legal liability, "this harassment cannot help but interfere with the medical decision-making process. Inevitably doctors will be forced to consider matters that have no direct bearing on what is best for the patient from a medical viewpoint." He cites several possible applications of the concepts that "injections do not ordinarily cause trouble unless unskillfully done." *New Legal Rulings Threaten MDs. Medical World News.*

The View Box

FRANZ GAMPL, M.D., *Chicago*

This 31-year-old Negro female entered the hospital with the history of productive cough for the past three months. She expectorated a cupful of yellow sputum per day, which occasionally contained streaks of blood. She also had night sweats and lost 16 pounds during the last two months. She complained of chest pain in the right infrascapular area.

On physical examination the patient appeared chronically ill and emaciated. Her temperature was 103°F., the pulse was 100 per minute, and the respiratory rate was 25 per minute. The physical findings were noncontributory, except for moist rales heard over the right lung base posteriorly.

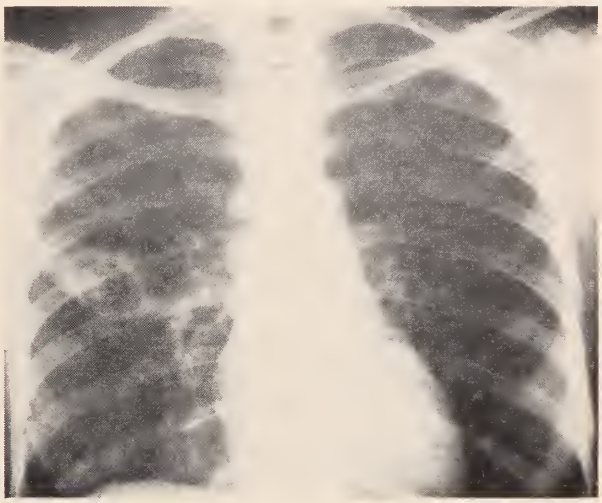


FIGURE 1. Chest radiograph in posterior-anterior projection.



FIGURE 2. Enlargement of the lesion at the superior segment of the right lower lobe.

What is your diagnosis:
1) Tuberculous cavity
2) Fungus ball
3) Lung abscess
4) Bronchogenic carcinoma

(continued on next page)

From the Department of Radiology, Cook County Hospital

The View Box — diagnosis and discussion

(continued from preceding page)

The diagnosis is tuberculous cavity containing a polypoid residue of lung tissue.

Sputum smears and cultures proved the tuberculous nature of the process. Under antituberculous treatment, the cavity showed rapid regression, the intracavitary density was assimilated by the lateral wall of the cavity. Complete healing with fibrosis was achieved in 10 months after the first examination.

Discussion: Pulmonary cavities or cysts containing a density on radiographic examination are uncommon. Air surrounding an intracavitary density in the form of a halo or a sickle has led to the descriptive terms of "pulmonary meniscus," "air-cap," or "crescent air" sign. The pathogenesis of the pulmonary meniscus sign varies with the underlying etiology.

1. *The pulmonary meniscus sign in a thin-walled cyst*: The density within the cyst changes its position with the patient in upright or lateral decubitus.

a) Pulmonary echinococcosis: Air dissecting the hydatid cyst from the surrounding lung tissue produces the characteristic appearance of the lesion. The size of the intracavitary density is rather large and may reach the size of a grapefruit. The intracavitary density is surrounded by a halo or meniscus of air. Soon after its demarcation, the hydatid cyst ruptures and the meniscus sign is no longer demonstrable. Formerly believed to be pathognomonic for echinococcal cyst of the lung, the air cap sign is also seen in other conditions.

b) Pulmonary aspergillosis and pulmonary moniliasis: Fungi of the species of Aspergillus and Candida have been found to invade preexisting pulmonary lesions such as cavities and bronchiectases. Their hyphae form a dense interlacing conglomerate, the "fungus ball", which may be demonstrated radiographically. The appearance of a fungus ball is that of a homogeneous round or oval density of cherry-to-egg-size, freely movable in a thin-walled cavity. Most aspergillomas described have been found in the upper lobes. In contradistinction to the echinococcal cyst they are smaller in size and their appearance remains unchanged over months or years. Hemoptysis of varying intensity and duration in an otherwise asymptomatic patient is their most conspicuous clinical feature.

2. *The pulmonary meniscus sign in a thick-walled cavity*: The intracavitary density is fixed to the wall.

a) Tuberculous cavity: Tuberculous cavities communicating with a major bronchus may contain a polypoid portion of lung tissue surrounded by a sickle-shaped air shadow (Figs. 1 and 2). This density may either break down and complete the process of cavitation or if successful therapy is instituted may become assimilated on to the wall of the cavity. In either case, tubercle bacilli may be found in the sputum establishing the nature of the cavity. Tuberculous cavities may contain an aneurysm of the pulmonary artery (Rasmussen). These are rarely demonstrated on radiography. If seen, they appear as densities measuring a few millimeters in size, protruding from the wall into the cavity.

b) Bronchogenic carcinoma: The breakdown of a tumor may lead to formation of a crescent shaped cavity, the residual tumor protruding into the lumen. Bronchogenic carcinoma is diagnosed in cases where the meniscus sign is associated with a large surrounding tumor mass or enlarged hilar or paratracheal lymp nodes.

3. *The pulmonary meniscus sign in a thick-walled cavity, with a fixed or movable intracavitary density*: Pulmonary cavities due to abscess, infarct or tuberculosis may contain detritus or blood coagula which have not been expectorated. These are occasionally associated with an air cap sign. Their shape may change rapidly and these cavities undergo rapid changes, the air cap sign being demonstrable for only a short time.

The radiographic demonstration of the pulmonary meniscus sign is useful in suggesting the initial direction of the clinical work-up.

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MEDICINE in the OUT-OF-DOORS

The Killer Mushrooms

Julius M. Kowalski, M.D., *Princeton*

With Warm Days and Cool Nights of early autumn comes the pleasant anticipation of the harvest and the rewards of a long season's work — the gathering of grains, fruits and vegetables. An added gift awaits in the woodlands — hickory, hazel and black walnuts. But this is also the season of the mushroom, a connoisseur's delight. A parody on the Air Corps admonition about old, bold pilots is applicable to mushroom harvesters: there are old mushroom eaters, and there are bold mushroom eaters, but there are no old, bold mushroom eaters.

The success in gathering mushrooms for table use is dependent upon astute observation of these fungi in their natural habitat, namely, their field characteristics. To be sure of the identification of a killer mushroom is most important even if one has no desire for any dish of reworked organic material which at best is largely water of distinctive flavor having the nutritive value of cucumber or cabbage.

The mushroom is the ephemeral fleshy fruit of a slow-growing enzymatic fungus plant, thread-like mycelium, barely discernible to the unaided eye. It produces innumerable spores to perpetuate its species and then rapidly deteriorates. This is vividly demonstrated in the Inky Caps *(Coprinus)*; one day there is a dense grouping of clean, white mushrooms and the next day only a black, slimy mess in the grass.

The lethal mushrooms are classified in the genus *Amanita* which are gill fungi or true mushrooms. They, like so many edible varieties (there are more than 3,000 species of mushrooms in North America) are identified by a *head* (cap) on a *stalk* (stem). *Gills* — thin, fish-like plates — are on the under side of the head and spores are produced on their surfaces. The gills in *Amanita* are always white or pallid in color and do not impinge upon the stalk. Consequently, the head is easily and cleanly detachable from the stalk.

In *Amanita,* a *ring* (annulus or veil) or a remnant of one is always recognizable on the stalk. Most often it is just below the gills but can be found at any level from the gills to the base of the stalk. Then, on the ground or buried below it is the *cup* (volva or pouch) from which the mushroom grew. This combination of ring on the stalk and cup at its base is the distinguishing feature of the genus *Amanita,* but it must be emphasized that in a plant that deteriorates as rapidly as mushrooms do, either the ring or cup or both may be in varying stages of regression and not easily identified by the untrained collector. Many edible mushrooms have either

a ring or a cup, but only in *Amanita* are these two structures always found together on the same plant.

The button (budding) stage of beginning growth in *Amanita* as the plant emerges from the cup may be confused with young puff-balls, a much sought mushroom for its delectable qualities.

Color is a poor key, generally, to the identification of mushrooms since it is dependent upon a number of variables such as light intensity and duration, the character of the forest duff, the staining properties of decaying leaves, mulch or wood, and many others. But the affirmative statement can be made that in the Great Lakes region mushroom hunters should keep hands off all plants that are chalky-white, pure-white, grayish, or off-white. True, some species such as the Chalky Mushroom *(Lepiota naucina)* illustrated in the text, are edible, but the possibility of mistaken identity is ever present since this variety appears in great profusion in the same areas and seasons as *Amanita*.

The mushroom picker should be able to identify and avoid at least two other varieties common in the Midwest besides those mentioned above. Almost every hiker has at some time seen the Jack-O'-Lantern or Deceiver *(Clitocybe illudens)* which grows in large clusters from hardwood stumps or from buried roots of these trees during late summer and early fall. It is a striking plant of yellow-orange or brilliant pumpkin-orange caps with the coloration extending downward on the stalks. The clusters at times are massive, sufficient to fill a half-bushel basket. The thin, closely-packed gills run from underneath the cap onto the stalk and downward to the base. During active growth, the gills emit faint light — therefore, the name Jack-O'-Lantern.

This species is likely to be confused with the edible Chantarelle *(Cantharellus cibarius)* which grows in the same locales and seasons as the former. It lacks the orange coloration; instead it is found in varying shades of yellow. The cap periphery is irregular, often undulating. The gills, however, are widely-spaced and some forking of these can be found on each plant. These gills, too, are continuous from beneath the cap onto the stalk. The plant has a distinctive fragrance.

Morels or Spongees are the prize of the springtime mushroomer, and in foreign markets command unbelievably high prices at times. The distinguishing feature of true morels is that the cap is elongated or globular, but always pitted. The pits may be nearly oval, elongated or vary in size and configuration and they may be shallow or deep; the cap resembles the surface of a sponge or a slice of airy Swiss cheese. As the cap emerges from the humus-rich forest floor in April and May, it is difficult to find since it can be mistaken for a decaying, worm-eaten leaf. Also, the pale brown, buff or fawn-gray cap blends deceivingly well into the background. Their appealing odor is like that of freshly baked bread. By contrast, false morels, which should be considered poisonous, have a wrinkled cap, often in folds or convolutions so it looks much like brain tissue. It is never pitted. Except for this feature, the two plants are similar in color and size and may be found growing side by side.

Mushroom poisoning is an all-encompassing expression indicating varying degrees of morbidity from mild gastroenteritis to fatality. Food allergies, idiosyncrasies and incompatabilities must be considered whenever illness stems from exotic or infrequently served dishes. Numerous gastric symptoms are common even after over-indulgence at the typical American Sunday dinner table. Ample documentation discloses that some individuals eat given species of mushrooms with relish while others of the same family develop varying symptoms of illness from that particular meal. To the distressed person this still means mushroom poisoning.

The present state of health, pre-existing pathology of the gastroentestinal, hepatic, cardiac and renal systems, the person's age and weight and the amount of food ingested have important significance in treating one with a gustatory insult. The heroic measures and synchronous team effort necessary to save the life of a patient poisoned by *Amanita phalloides* is described by W. Elliott, et al. (Lancet 2:630, Sept. 1961). This exciting case report runs the gamut of personnel from the general practitioner who recognized *Amanita* in the field to the pathologist who was familiar with mushroom poisoning. The patient was discharged with minimal residua after 34 days of intensive treatment.









TOP LEFT

Chalky Mushroom *(Lepiota naucina)*

The Chalky Mushroom is edible but because it resembles the Destroying Angel so closely it should be avoided. The stem does not have a "death cup" at the base.

Frequently, during a rainy fall, this mushroom appears in great abundance in lawns, meadows, pastures, and woodlands.

TOP RIGHT

Jack-O'-Lantern *(Clitocybe illudens)*

Jack-O'-Lantern causes violent nausea, usually within an hour after eating. The entire plant is a bright orange-yellow. The plants usually occur in large clusters, sometimes weighing from 5 to 10 pounds and filling a half-bushel basket. The clusters are usually attached to stumps and buried roots. In the dark, the gills of this mushroom emit a luminescent glow.

The individual caps are 3 to 5 inches broad. The gills are unbranched and run down at the stem.

Jack-O'-Lantern is a woodland species and is in season in late summer and early fall. This mushroom is often confused with the edible Chantarelle, which has thick, much-forked gills.

BOTTOM LEFT

Destroying Angel or Death Cap *(Amanita verna)*

THIS IS THE MOST DEADLY MUSHROOM KNOWN. It is especially dangerous because the symptoms of poisoning appear so late that first aid attempts are nearly useless. This species is responsible for most of the fatal cases of mushroom poisoning in the northern temperate zone. Even a small piece may cause death.

The cap, 2 to 6 inches in diameter, varies from pure white to a pale grayish brown. The gills are white and free from the stem. The stem, 2 to 8 inches high, has a spherical base which is set into the "death cup." The cup or volva may be buried beneath the surface of the ground.

The Destroying Angel occurs in the woodlands throughout the Midwest and may be found in late summer and early fall. In a moist season it may be common.

When wild mushrooms are to be used for food it is wise to avoid those species which have white caps and white gills.

BOTTOM RIGHT

Fly Mushroom *(Amanita muscaria)*

The Fly Mushroom is a DEADLY species. It is the largest and the most beautiful of our gilled mushrooms. The cap, 6 to 8 inches wide, is reddish-orange and spotted with large white or pale yellow warts. The gills are white or cream-colored and are free from the stem. The stem, 3 to 8 inches high, has a soft, white collar borne a short distance below the cap. The bulbous base of the stem bears a series of rings.

The Fly Mushroom appears in August and September in aspen and coniferous woodlands. It seems to prefer rather sandy soil. During rainy periods it may be plentiful in the Great Lakes region.

(Photos reprinted from the *Wisconsin Conservation Bulletin*, March-April, 1962, courtesy Dr. Albert M. Fuller, Curator of Botany, Milwaukee Public Museum.)

Unfortunately, lethal mushrooms have no obnoxious taste or smell. Patients questioned in the latent period when their faculties are still intact about the taste invariably answer that the meal was agreeable, even delicious. This stealthy quality made poison mushrooms a prime choice for the professional poisoners of ancient times. History only partially records the demise of monarchs or the fall of nations consequent to a feast of roast goose with *Amanita* stuffing.

The mushroom poisoning is of two types — rapid and delayed. The rapid type is due to *Amanita muscaria,* the Fly Mushroom, which contains the alkaloid muscarine. The onset of symptoms occurs soon after the meal, usually within two hours. Muscarine poisoning is characterized by severe abdominal pain, hyperperistalsis with frequent forceful evacuations, marked salivation, lacrimation and sweating, miosis, bronchial constriction and dyspnea, cardiac slowing and vasodilation. These changes lead to cardiovascular collapse, coma and death. Atropine is a specific antidote for the muscarine effect. Normal physiologic functions are restored with atropine even in severe cases where the prognosis at first glance appears poor.

The delayed reaction is due to *Amanita verna* and *Amanita phalloides* which contain the toxins amanitine, phallin and phalloidine. Symptoms occur after a latent period of 6 to 15 hours following the mushroom meal. Severe abdominal pain, retching and diarrhea appear abruptly and continue for hours. Dehydration and electrolyte imbalance follow. Jaundice appears after several days and renal involvement results in oliguria or anuria. The cardiac and respiratory systems are gradually depressed and coma ensues. Death occurs in 5 to 8 days. Treatment is by hemodialysis as pointed out by Elliott in the Lancet reference above.

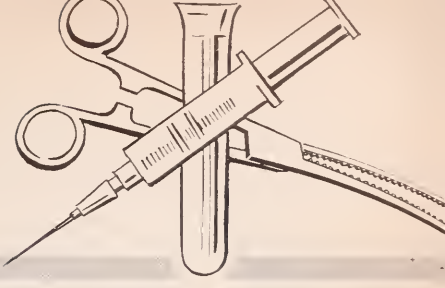
As concerns old wives' tales, there is no difference between mushrooms and toadstools — only the names. The silver test for poison mushrooms is best accomplished by putting the shiny coin in your pocket and throwing the pot away. The sliced onion for a test will serve a better purpose on fried steak than in a stew of nondescript mushrooms. Leave the tasting of unknown species to daring mycologists. Mushrooms are available at your grocers.

Reporting Blood Dyscrasias

Many drugs cause blood dyscrasias, occasionally irreversible, resulting in death. For some time the American Medical Association has maintained a register under the auspices of its Subcommittee on Blood Dyscrasias and twice a year it publishes a tabulation of reports obtained from physicians or from the literature.

It is recognized that this register does not by any means represent all the cases that occur, for it is certain that many are unreported and even more remain unrecognized. Also the extent of drug use must be taken into consideration. For instance, aspirin is used extensively; yet only two cases of blood dyscrasia are mentioned in the subcommittee's report of July, 1960, when the drug was used alone. Penicillin, also used extensively, is reported as causing five cases of blood dyscrasia when used alone. On the other hand, chloramphenicol is reported to have caused 33 cases of pancytopenia, two cases of thrombocytopenia, and five case of leukopenia when used alone. Many more cases are noted when the drug has been used in combination with other drugs, but in such a case there is always the question as to which drug produced the reaction. Mepazine (Pacatal®) was responsible for 11 cases and chlorpromazine (Thorazine®) for 45 cases of leukemia, indicating blood studies must be made frequently when these drugs are used.

It is important that physicians report all reactions to drugs, particularly blood dyscrasias, so that accurate record can be obtained as to the incidence of reactions. *Arthur C. DeGraff, M.D. From the Medical Editor's Desk. GP. January 1961.*



Clinical Surgical Conferences

Cook County Hospital

Abdominal Trauma

Moderator: John A. Boswick, Jr., M.D.
Department of Surgical Education, Cook County Hospital, Department of Surgery, Northwestern University Medical School

Discussant: Manuel E. Lichtenstein, M.D.
Chairman, Department of Surgery, Cook County Hospital, Associate Professor, Surgery, Northwestern University Medical School

Dr. John A. Boswick, Jr.: It would be appropriate to introduce this conference by emphasizing the importance of the subject to be presented and discussed. Those of you who have been at the County Hospital are aware of the number of patients seen here who fall into this category, and therefore, recognize the diagnostic and therapeutic problems they present. We are pleased to present our speaker who is well versed in this subject. He has been with Cook County Hospital for 28 years as intern, associate, night surgeon, attending surgeon and, since 1958, Chairman of the Department of Surgery. It is obvious that he has a wide experience in the field of traumatic surgery. During World War II, the U.S. Army was fortunate in having his experience. He was then Colonel Lichtenstein, commanding an evacuation hospital in the Mediterranean area. Records in the Surgeon General's Office reveal that this hospital accumulated an enviable reputation in the field of patient care.

We will start by presenting the first case:

Case Report

This 51-year-old white male was admitted to Cook County Hospital, four days after being held up, robbed, and kicked in the abdomen four to five times. His only complaint on admission was mild to moderate pain in the RLQ. Findings were limited to the abdomen, where there was mild to moderate tenderness in the RLQ, and hypoactive bowel sounds. The hematocrit was 42, white blood 8,600 with a normal differential. He was placed on NPO, and I.V. fluids. The abdomen became less tender, and the bowel sounds returned to normal. On his third hospital day he was started on liquid feedings, and was gradually increased to a general diet. He was ambulatory, asymptomatic, and with normal gastrointestinal activity. Due to these findings in a patient of this age, it was decided an evaluation of these symptoms was indicated. On the patient's eighth hospital day, a barium enema was performed and about 12 hours later the patient became acutely ill. His abdomen became distended, and had board-like rigidity.

Dr. Boswick: Dr. Lichtenstein would you discuss the diagnosis of this case, and what should have been done for this patient.

Dr. Manuel Lichtenstein: Abdominal trauma has always been an important subject, important from the medicolegal point of view, and from the activities in all hospitals.

We divide abdominal trauma into penetrating and non-penetrating wounds. What do you look for with abdominal trauma? The causes of death are hemorrhage, obstruction obscure or delayed, solid or hollow viscera injury. Inadequate or delayed treatment causes death from hemorrhage. Another cause of death is peritonitis, usually due to rupture of a hollow viscus.

This can occur with delay in surgery. I mention these because undiagnosed duodenal injury may be extraperitoneal and there may be no signs to indicate a leak of duodenal contents into the peritoneal cavity. One should be suspicious, however, when tenderness persists on the right side or the x-ray shows bubbles in the retroperitoneal area.

Another cause of death is concomitant injury to adjacent structures, like the thorax and pelvis, or remote injuries to the head, spinal cord and skeletal structures. When a person has an injury to the abdomen, he needs an examination of the entire body; I emphasize that it is necessary to take all the patient's clothes off, use an adequate light and really take a good look. You look at the skin and the circulation, but you also examine the head, neck, chest to make certain that he has not had fractured ribs or a sucking sound of the chest. Be certain that he is not bleeding at the site of a fracture. If he is unconscious, comatose, or incommunicative you look for the needle puncture wounds, and try to get some history.

There are some laboratory data that you can be getting while you are treating the patient: red count, hemoglobin, hematocrit. If there is any suggestion that the patient may be bleeding, this would be a good time to prepare for transfusion. You can use low titer negative type O blood, but if possible get properly crossmatched blood. Always see if the patient can urinate voluntarily; if he cannot, put in a catheter. Urine should be checked, especially for blood. The person with injury to the back or spinal column usually can urinate the first time he tries. When you find that he cannot, be suspicious of an injury to the back or an accumulation of blood in the retroperitoneum, which like renal colic may develop abdominal distention. The sudden development of distention is due to sympathetic nervous system reaction and should alert you to the fact that something serious has happened. Do not take just one measuresment, but have it repeated often and write it down so you can check it with the original reading. Where there is shock and anuria, circulatory replacement is essential; make certain that the patient has a good respiratory exchange and replace any deficiency. He must be comfortable and that is why you look for broken bones, put on splints and give necessary sedation. You fight the battle of distention with a nasal tube. Give him nothing by mouth, and keep a record of what you are aspirating.

In order to get an adequate study of the abdomen an x-ray examination is necessary to indicate if the diaphragm is intact. View should include the pelvis. Look for free air, opaque shadows, herniations, abnormal lines and fractures. A good roentgenologist is always an asset in interpreting films in the obscure case. An intravenous pyelogram or cystogram may be made to get some information about the kidneys and bladder. Make a survey of other parts of the body that were injured and have the necessary x-rays taken and re-examine the abdomen for changes in outlines and patterns to clarify the doubtful case.

The difference between a patient with a penetrating wound and one with blunt trauma is very important. With penetration you open up, but if there is little or no finding and you want to know whether there has been severe injury that has not manifested itself, you will have to engage in all this or wait until there is deterioration of the patient's condition.

The abdominal wall has a roof, floor, front and back. Frequently there is injury to the structures that lie behind the peritoneum and the peritoneal findings are not plainly discernible. It takes some time before something breaks through the peritoneum and the patient will complain of tenderness or muscle spasm. Also keep in mind that the lesser peritoneal cavity is part of the posterior abdominal region. By disconnecting the gastrocolic ligament, one can make an exploration of the lesser peritoneal cavity to be sure no perforations are left uncovered.

If you look at the rectus muscle of the abdominal wall, it has attachments to the 5th, 6th, and 7th ribs. If those ribs are broken, there will be tenderness and muscular rigidity in the upper abdomen because the muscle is pulling on a fractured rib and it will go into spasm. For that reason, it is deceiving to operate upon a patient on the basis of muscle spasm. You must look for other evidence of injury. If the rectus muscle is rigid, and if the lateral muscles are participating in the spasm, and if the patient has good bowel sounds, it is not likely that he has injury to the viscera and one should wait longer to make more certain.

The inferior epigastric vessel is frequently injured and can cause hematoma that is tender and looks like an intra-abdominal mass. When bleeding takes place here, it lies between the muscle and fascia. It can compress the bladder and make it difficult for the patient to urinate. Here it is not a mistake to operate on the patient on the supposition that there is something intra-abdominal because if you ligate the bleeding vessel it is possible to control all the symptoms and the patient will recover more readily.

The easiest patient to take care of diagnostically is the one with a penetrating or perforating wound. If the patient has a wound, it should be explored, even if the patient has no symptoms. You must cut right down through that wound to see if there is a bleeding vessel. If there is one, ligate it. It is remarkable how many wounds do not bleed when they are inflicted, especially when the vessel is transected completely. If the wound penetrates the peritoneal covering, the abdominal cavity should be explored.

Many individuals brought to the examining room have small pen knife wounds of the abdominal wall. These patients may feel well, but days later have diffuse peritonitis from a hole in the bowel.

A patient and his assailant were brought to the examining room by the police one Saturday night. The patient's wound was very small and a dressing was applied. He was taken to the House of Correction, and four days later was discharged. At the end of four days diffuse peritonitis developed and the patient died. At autopsy there was a hole in the cecum, but it took four days for that hole to open up enough to produce an overwhelming, diffuse infection of the peritoneum. Because these so-called trivial accidents are so often fatal this subject is extremely important to the surgeon.

There are many patients with perforating wounds without injury to the viscera. However, the best way to know is to explore the abdomen, even when the person has only mild signs and symptoms. During the war, analysis of all abdominal wounds that were explored showed that 20 per cent did not have visceral involvement but had injury limited to the abdominal wall. All of this 20 per cent were operated upon. This gives you assurance that you do not have to go back and re-examine the patient, hoping that nothing has happened but always worrying that something was injured. It is better to explore and make certain.

(Film). Here is a condition that is common all over the world, and I have seen it here at Cook County Hospital. This patient came in with respiratory symptoms. Thoracotomy was done and purulent, fecalant material came from the chest. The patient was very septic and died. Autopsy revealed a scar two inches in length at the level of the fifth rib. There was no note on the chart that there was a scar on the back. It was such a trivial thing that nobody mentioned it. No one noticed it, but at autopsy it was determined that the patient had died from a knuckle of jejunum that got caught in a hole in the diaphragm itself. It became gangerous, sloughed off, and produced a fatal empyema. Here was a case of injury to the diaphragm responsible for the patient's death.

Non-penetrating abdominal injuries present the greatest problem. Such trauma can occur from automobile accidents, falling, stumbling, machinery kickbacks, fists, kicking, or sports. There is no wound of entry or exit, yet in every one of these accidents the patient may sustain a fatal injury to viscera. Blows on the abdomen are commonplace, and they bring up problems of differential diagnosis between injury to the abdominal wall which may not be fatal and injury to the intra-abdominal contents causing tenderness and muscle spasm in the abdominal wall. A blow injuring the rectus muscle is characterized by tenderness and muscle spasm so that after awhile it is difficult to distinguish between an injury to the abdominal wall and to the intra-abdominal contents.

When a person sustains a blunt trauma injury he may immediately be seen in a drugstore, hospital emergency room or police station, and in a short time may be in a place to be examined. He may have a hole in the bowel but has arrived at a hospital before there are symptoms of bowel injury. He may be bleeding from a vessel but does not manifest evidence of blood loss. With the act of trauma, the patient's adrenal glands are stimulated to mask any feeling of injury. This patient should not be allowed to go home; he needs a period of observation. Many times such a patient is admitted with a good blood pressure and pulse, but in half an hour there is no blood pressure,

he is cold and sweaty. This can happen in a short time if a large vessel opens up because a blood clot has been disturbed. Such a sudden change may make it impossible to prepare that patient for what needs to be done.

I know a patient who fell from a curb and landed with a shock on the pavement. She went home and it took four days for the bowel that had lost four inches of mesentery to become gangrenous and leak. On the fourth day she had symptoms of peritonitis, and bowel resection had to be performed.

(Film). This patient had indirect trauma. She was straining at stool and collapsed with severe abdominal pain. At hospital, she had difficulty in urinating, and this pyelogram was made. The ureter is pushed over the midlines and into the bladder. This is the same patient three months after discharge from the hospital and the ureter is back in place. She was scheduled for surgery, and the surgeon was going to do an extraperitoneal removal of a tumor. The abdominal wall was opened and the deeper the incision was made the bloodier it became. The blood came out in such torrents that the surgeon and his assistant were covered with it. She was given eight pints of blood, and stayed in the operating room four hours. She received additional quantities of blood before she was opened again. At surgery we located the ureters and cleaned out a false aneurysm. There was a hematoma with a leak from the internal iliac artery directly off the bifurcation of the common iliac. This patient had been getting treatment for a luetic condition at another hospital over a long period of time. This was a luetic arteritis and a part of abdominal trauma because she was straining when the rupture took place.

Every year some boy playing football gets kicked in the abdomen, goes home to bed and says he is just tired. The father comes home and finds he is cold and wet, and by the time the boy gets to the hospital he is dead. At postmortem we find a ruptured spleen. The dangers of blunt trauma are real, and deserve early attention. You should not send the patient home without a period of observation; in some individuals the result of injury may not be known for four or five days.

(Film). This person sustained a blunt injury to the roof of the abdomen. He was knocked down by an automobile and, when brought to the hospital, had a fractured pelvis. On the fifth day he told the doctors that for years he had had rumbling and gurgling in the abdomen on the left side but that it was in his left chest now. This was confirmed on examination. X-ray revealed the colon and the rest of the small bowel in his chest. When his chest was opened, he had viscera stuck to some fractured ribs; these fractures had not been detected, nor had a six inch rent in the diaphragm. Fortunately the viscera were not damaged so that replacement was all that was necessary.

(Film). Here is a person who six months before jumped off a truck backing up to a platform. Before he could clear himself the tail of the truck pushed him against the platform, compressing the upper abdomen. He came to the hospital in shock but recovered very promptly. X-rays were negative. After a few days he went home and worked for six months, but during this period he had a cough. He was told to stop smoking, and he did. When the cough got worse he was told to stop drinking. He did, but became very ill and had great difficulty in breathing. Chest x-ray revealed a good costrophrenic angle so it could not be pleurisy with effusion. We inserted an Ewald tube in the stomach and got out 2,000 cc. of gastric juice, and in 48 hours there were 12,000 cc. of fluid removed from the stomach. Barium was put in to demonstrate that the stomach was in the pleural cavity. Operation upon this patient revealed a hole in the diaphragm.

Difficulties may arise in arriving at a diagnosis of injury as the result of indirect or blunt trauma. In another case, the patient had some catastrophe occur as the result of receiving blows. He evidently had perforation of a segment of bowel. Obstruction was due to adherence at the site of injury. Apparently he did not leak extensively at first but the field was covered with exudate and ultimately intestinal obstruction developed. The barium enema was sufficient pressure to initiate a leak.

Dr. Boswick: This review was planned to cover the most important aspects of a subject that is very disturbing diagnostically. It calls on all your resources and experience to determine who should be kept in contact with if he insists on going home. Children who are hurt in football accidents can lose their lives from

injury to the viscera. One should not treat such a patient too lightly and should not be influenced by his bravado.

This patient's findings were as predicted by Dr. Lichtenstein, and we will ask Dr. Banich to review them.

Dr. Francis Banich: At the time of surgery the patient had an inflammatory mass deep in the right lower quadrant which accounted for the minimal tenderness. He had a low mechanical ileal obstruction secondary to this. The sigmoid, ileum and parietal peritoneum made up an abscess space. The appendix was slender, normal and was in this mass but no fistula was found. During dissection the abscess cavity was entered and it was found that the involved ileal loop opened into the cavity, so this must have been perforation with falling off and obstruction later.

Question: Is it possible to get free air in the peritoneal cavity following injection in the bladder or stomach?

Dr. Lichtenstein: Yes, and I have an explanation for this. I saw a patient years ago who showed marked distention. He was a carpenter, and had finished his work, took an air pressure hose to blow sawdust out of his tools. While he was doing this, there were some high school boys watching. Seeing the effect of the air pressure hose to blow the sawdust and shavings, one boy thought it would be interesting to take the hose and put it by the carpenter's anus; he immediately collapsed. A passerby stopped his car, went over to see the man, called the police, and the patient was brought to the hopsital. X-rays showed a tremendous amount of free air in the peritoneal cavity. When I incised the peritoneum all the air came out, but the thing that amazed me was that there was no fecal matter. There was the slightest amount of blood. There was no perforation to be seen anywhere. Out of curiosity, I filled the peritoneal cavity with salt solution and dumped the bowel in the salt solution and nothing leaked. There was a small seromuscular cut of the colon which we sutured and then closed the wound. He did not run temperature. His pulse was normal. On the basis of that case and what I have seen subsequently, I have the feeling that if you inflate air into the bowel, some of it can pass directly through all the layers of the wall, also the urinary bladder. It is possible for air particles to be so fine that they can go through without injury.

Dr. Boswick: Thank you very much, Dr. Lichtenstein, for this excellent discussion.

For Review

1. The diagnosis of a penetrating injury is usually easy and self-evident; in contrast, that of a non-penetrating injury can tax the ability of the most experienced surgeon.

2. Symptoms of abdominal injuries include pain, nausea, vomiting, hematemesis, hematuria, melena, apprehension, thirst, and air hunger; the outstanding symptom of pain may be unavailable to the surgeon in the case of an unconscious patient.

3. Symptoms and findings should be supplemented by rectal examination: the insertion of a catheter (if the patient is unable to void promptly), and the insertion of a nasogastric tube.

4. Physical signs most indicative of visceral injury are tenderness, muscular spasm, absence of liver dullness, shifting flank dullness, and absence of bowel sounds, the most significant being tenderness.

5. Plain and erect films of the abdomen may give evidence of a foreign body, splenic or hepatic enlargement, free gas in the peritoneal cavity, and obliteration of the psoas shadows. With the slightest evidence of injury to the genitourinary tract an intravenous pyleogram should be done.

6. Treatment should not be delayed until diagnosis is complete. They should proceed together in a well integrated fashion, initial therapy consisting of maintenance of an adequate circulating volume, Trendelenburg position, and oxygen therapy.

7. Shock occurring early after injury is usually due to blood loss; after a few hours sepsis and peritonitis can contribute. A rising pulse rate may be the earliest indication of impending shock, usually confirmed by a later decline in blood pressure.

8. In questionable cases frequently repeated hematocrits can be most helpful, and on occasion, an abdominal paracentesis will reveal block, bile, or gastro-intestinal content.

9. When surgical intervention is elected, maximum exposure and maneuverability can usually be gained through a vertical incision, avoiding accidental wounds of entry or exit to avoid wound sepsis and its complications. Careful layered closure and retention sutures are recommended; colostomies, tubes, and drains should be brought and through separate incisions.

10. When it is impossible to establish a diagnosis and visceral injury or intra-abdominal hemorrhage is suspected, one should remember that:

"Absence of proof is not proof of absence" and that it is far safer to:

"Look and see" than to "Wait and see."

DELAY INCREASES MORTALITY.

SEVEN AUTHORITIES DISCUSS

The Thalidomide Tragedy: Moral Aspects

The recent tragedy of thalidomide-induced phocomelia throughout Europe and America has openly challenged existing concepts of medical ethics. Some believe that in these exceptional cases the doctrine to preserve life at all costs also should be excepted — that existing laws should be implemented to permit abortion, and, if necessary, even euthanasia.

To review this pressing moral issue, The Illinois Medical Journal has selected seven outstanding authorities — four physicians and three theologians representing the major religious denominations. Their opinions are presented here as a service to readers and in no way reflect any official endorsement by the Illinois Medical Journal or the Illinois State Medical Society.

WILLIS J. POTTS, M.D.: ". . . I can come to only one conclusion . . . the laws should be changed to legalize abortion for such specific cases only."

Dr. Potts is a noted Chicago pediatric surgeon who for many years has treated surgical defects of the newborn. His expert opinion on the thalidomide issue has been carried in the newspapers.

The cause of birth defects seen from day to day all over the world is unknown. We do know that a mother who has had German measles during the first month of pregancy has about a fifty per cent chance of giving birth to a deformed infant. Congenital heart defects, deafness and blindness are most common.

Recently, it has been learned that a drug called thalidomide, taken by mothers during the early months of pregnancy will cause phocomelia (absence or deformity of arms and legs) in a fairly high percentage of infants.

This difficult question faces parents, doctors and law makers: What shall be done if a mother contracts German measles or inadvertently takes a harmful drug shortly after she has become pregnant? Shall therapeutic abortion be advised or shall the parents anxiously await delivery of the baby in the hope that it will be normal?

It is against the law in this country to perform an abortion except when continued pregnancy endangers the mother's life. An abortion performed to avoid the birth of a deformed baby is illegal.

I have been asked to take a stand on this matter of terminating a pregnancy in which it is anticipated that the chances of having a deformed baby are high.

Having for many years spent much of my time in trying surgically to correct serious congenital defects in the newborn; having witnessed the anguish of parents confronted with the problem of caring for a malformed child; having seen the burden these children carry

PHYSICIANS' VIEWS are by (from left) Dr. Willis J. Potts, Dr. Charles H. Frantz, Dr. George T. Aitken, and Dr. Harvey Kravitz.



into adult life, I can come to only one conclusion. I would advise that the laws be changed to legalize abortion *for such specific cases only.* Before proceeding, the parents should have the opinion of three reputable doctors and should consult their religious leader or close friend. The final decision should be made by the parents. After they have decided for or against abortion, those whom they have consulted should support their decisions to make them feel that they have exercised the best judgment of which ordinary human beings are capable.

If it were made lawful to perform an abortion under circumstances as listed, a number of factors still would have to be considered before a pregnancy is terminated.

Parents who have three or four normal children would naturally and normally hope they could somehow avoid adding a badly deformed child to their family. On the contrary, a childless couple near their forties probably would choose to take a chance and allow the pregnancy to go to term.

The financial status of a couple would also play a role. People living on a meager income would hesitate to take on the greatly added expense of caring for and bringing up a deformed child.

The misfortune of having a child so badly deformed that normal social life and marital love are later denied is incalculable. A kind God does not send into this world deformed children to punish parents or innocent children. Deformities are unfortunate accidents of fetal development. If it is within our power to avoid such tragedies before the fetus knows life, is it not an act of kindness to extinguish that tiny spark. Our duty is to relieve suffering. Cannot that duty be extended to avoid suffering?

CHARLES H. FRANTZ, M.D., AND GEORGE T. AITKEN, M.D.: ". . . many of these children are of normal or high normal intelligence, indicating an excellent possibility of emotional and social habilitation."

Dr. Frantz, Grand Rapids, Michigan, is Chairman, Subcommittee on Children's Prosthetic Problems, Committee on Prosthetic Research and Development. As the nation's leading authority on prosthetic aids for children, he has been given an Easter Seal travel grant to go to Germany this month and investigate the phocomelia problem.

Dr. Aitken, Grand Rapids, Michigan, is Chairman, Committee on Prosthetics Research and Development, National Academy of Sciences, National Research Council.

The recent press release suggesting euthanasia of phocomelic children in Germany and England and the proposal for legal justification to abort pregnant women known to have ingested thalidomide seem to be unjustifiable and a poor stop-gap in the present unfortunate situation in Europe. Legalized abortion at first thought may seem to be a prophylactic measure, but may have far-reaching undesired effects. In Dusseldorf only 50% of the women who took thalidomide delivered abnormal infants. Euthanasia is defined as mercy death; the putting to death of a person suffering from an incurable disease. I feel that most physicians immediately think of incurable malignancies and the vegitating elderly patient. When considering euthanasia for a child, under the circumstances, I believe we would be defeatists. The proponents for this procedure fail to realize that many of these children are of normal or high normal intelligence, indicating an excellent possibility of emotional and social habilitation.

Advances in prosthetic techniques and material since World War II are expected to continue, and there is a high degree of probability

THEOLOGIANS' VIEWS are by (from left) Rev. Walter M. Wangerin, Rev. Francis L. Filas, and Rabbi Louis L. Mann.



that prostheses of various types will aid in rehabilitating potential productive citizens. The medical profession in Germany is working diligently to analyze these cases and attempt prosthetic restorations.

There are at the present time in the United States active research and development programs in the areas of prosthetics and orthotics taking place under the combined aegis of medicine and engineering in multiple centers. These efforts have already contributed greatly to the improvement of artificial limbs and braces, and the continuing efforts will undoubtedly bring forth additional advantages. External power of various types as a means of mobilizing artificial limbs for the severely handicapped individual is being investigated. Working models using pneumatic and electric sources have been developed. With this known continuing effort in the area of research and development, it seems unreasonable to destroy individuals who may be benefited by these efforts. No consideration of the use of euthanasia has been entertained in the random cases of similar deformities unrelated to the use of thalidomide. It seems illogical to entertain such radical notions for this group that is different only in that the etiology is more evident.

There is well documented information in the medical and prosthetic literature that indicates that the progress in the management of children with congenital limb abnormalities with or without surgery has made outstanding progress in the past decade. There is further every reason to believe that there will be continuing refinement in techniques and components which will make these restorations even better.

HARVEY KRAVITZ, M.D.: **". . . a therapeutic abortion should be performed if the mother having examined her religious beliefs gives her consent."**

Dr. Kravitz, Chicago, has an extensive pediatric practice and is a widely published medical author.

The medical question of performing therapeutic abortions on patients who have taken a known teratogenic drug such as thalidomide is answered in the affirmative.

Since conception or development of the fetus occured in an abnormal physiologic state, a therapeutic abortion should be performed if the mother having examined her religious beliefs gives her consent.

There is previous medical precident for this approach to the problem as in cases of German measles. In the state of Illinois, therapeutic abortions are permitted only if the mother's life is threatened. The question in these cases is not whether the mother's life is endangered, although it may be argued that the mother may develop a psychosis or commit suicide. The real question that must be considered by doctors is whether ingestion of teratogenic drugs or exposure to other agents such as atomic radiation in early pregnancy be considered a medical reason for performing a therapeutic abortion. I believe that legal implemention to this opinion should be sought.

REV. WALTER M. WANGERIN, PH.D.: **". . . I would not censure the couple which would decide upon legal abortion, if this decision seemed to be based upon sufficient medical advice and their earnest search for their motives."**

Reverend Wangerin at present is serving as Visiting Professor of Religion and Education at Concordia Teachers College (Lutheran), River Forest, Illinois, with the special assignment as editor of catechism materials.

When a husband and wife learn that they have a fifty-fifty chance of becoming parents of a baby that is seriously deformed, they face some frightening alternatives. The writer of this brief statement, a Lutheran clergyman and Christian counselor for two decades, and the father of five sons and two daughters, seeks to indicate several principles which a Christian couple, who respect the Bible as the Word of God, may follow as they are confronted by this problem.

1. In view of Romans thirteen and other references to obedience to the civil government which enacts laws for the common good of the citizens, the Christian will not regard abortion as a choice where the law forbids it.

2. Holy Scripture does not give a definition of the exact time when "man becomes a living soul." Therefore, the Scripture is not clear in making abortion a sin against the commandment "Thou shalt not kill."

3. The Christian couple would not consider euthanasia because this act would be a clear violation of the commandment "Thou shalt not kill."

4. A husband and wife must be free, from a moral point of view, to make a decision with respect to abortion. But the Christian couple would earnestly and honestly examine the motive prompting the decision. Is the choice prompted by pride? Are they selfishly trying to avoid an opportunity to show special love and concern for a new human being? Are they reluctant to alter their accustomed standard of living? Are they tempted to "play God"? Is it a desperate measure to cover an immoral act? Is the prospect of a deformed baby a valid reason? Where the efforts of medical science can clearly predict this prospect, and where this beyond any question would cause irreparable mental or physical damage to either parent, legal abortion might be the answer.

As a Christian counselor, I do not believe I would initiate the idea of abortion to a couple which had come to me for advice in this problem. I would regard this as a unique opportunity to help fellow Christians demonstrate that genuine faith in God is to be lived and not only professed. I would endeavor to convince these people that the Heavenly Father who had allowed this challenge to confront them would also grant them a stronger faith to meet this problem, or may even present them with a child that was sound and healthy. However, I would not censure the couple which would decide upon legal abortion, if this decision seemed to be based upon sufficient medical advice and their earnest search of their motives.

If the legislators of the State of Illinois liberalize the law which prohibits abortion in order to meet the problem which has arisen in the Thalidomide Syndrome, they would not act contrary to a Christian principle based upon Holy Scripture. However, if this should happen, I would sincerely hope that the new law would be meticulously written to cover this kind of problem specifically.

Rev. Francis L. Filas, S.J.: "To my mind, such abortion and euthanasia are utterly immoral."

Father Filas is Chairman, Department of Theology, Loyola University, Chicago. As a member of the board of Cana Conference conductors in Chicago, he has spoken before 125,000 husbands and wives or couples preparing for marriage. He also is known to Chicago television viewers for his educational and religious telecasts.

The precise question might be phrased thus: When a woman has taken significant doses of thalidomide during early pregnancy, is it ethically permissible either to abort her child or to kill the child after birth in case it manifests the syndrome of phocomelia?

To my mind, such abortion and euthanasia are utterly immoral. By "immoral" I mean against the law of the Creator, apart from all considerations of health, financial profit, convenience, expense, or sentimental opinion. This law can be cited fundamentally from biblical teaching as "The innocent and just man thou shalt not put to death" (Exodus 23:7), and has been upheld in all centuries of Judaeo-Christian tradition as the required ideal.

Emphatically, this does *not* imply that we are obliged to take all *extraordinary* means in order to keep life in existence. We may certainly permit nature to take its course, while providing the ordinary means of sustaining life because we are normally obliged to use only such ordinary means. Nor should this rigid stand regarding the sacredness of innocent life be characterized as cold and hard-hearted, since it is taken by the same divine ambassador Jesus Christ who said, "Blessed are the merciful," as well as "Thou shalt not kill." Our mercy ceases to be merciful if its price for relieving pain is the violation of the Creator's law. One reason for this is that the relief of pain in itself can never be the norm of right and wrong. Moreover, God can give suffering an eternal value and meaning which is tremendously superior to any ideal we can envision, even such as the continued enjoyment of a life of contentment on this earth.

The difficulty with presenting the "case" for this ethical view is that it needs little or no justification if one holds that the Creator alone has the right to terminate innocent life directly. However, if one denies either the existence of God, or permanent moral law, or of the Cre-

ator's exclusive right over life, the opinion might be rejected for lack of proof. Yet we must always return to the point that scientific feasibility can never be considered the source of the distinction between good and evil.

A separate and more pragmatic line of argumentation rests on the consequences which follow if abortion and euthanasia were to be permitted in these phocomelic cases. A great difficulty occurs for those who advise abortion but recoil before euthanasia. What is the difference, whether the child is to be killed before or after birth? *All* respect for human life disappears if we begin to draw a line between the biological ages or the degrees of helplessness that permit someone to take the life of a human being. Logically, we would have to grant that *all* persons physically or mentally incapacitated at *any* age should equally be put out of their distress — along the lines of Hitler's superstate concentration camps where millions of innocent Jews were gassed. In our present civilization, what human, arrogating to himself the prerogatives of the Creator, is to decide the degree of incapacitation that calls for death?

As for the suggested abortion in the case of threatened phocomelia, the pendulum has swung from concern for the mother to concern for the child. Therapeutic abortion has been permitted by the civil laws on the pretext of saving the mother's life, but in the present case even that pretext is dispensed with. The only possible grounds for aborting a maimed infant will be the care and trouble it will cause its parents and ultimately the state, and that it may perhaps have a life of discomfort if not pain. Thus, the appeal to abortion merges into an appeal for euthanasia, even before the evidence is present that the child has been affected by the thalidomide.

In summary, all the traditional arguments against euthanasia in the medical profession recur: Incentives for medical progress are destroyed since the "easy way out" is adopted, the doctor of medicine becomes a potential executioner, and the decisions for life rest in the hands of whoever holds power. Certainly, the prospect of thousands of malformed phocomelics is depressing and horrifying; but since the accident has occurred, should we not (as in the case of every other accident!) attempt to overcome its effects without killing the persons who have been maimed by the accident? Even the surgeon realizes that he must often tolerate his infliction of pain and suffering before the desired healing of his patient can occur. The pressures of a drastically shocking situation may well drive medical science to relieve the problems of the phocomelics by devising procedures hitherto unknown, just as medicine has done in the case of every other challenge to health.

Rabbi Louis L. Mann, Ph.D.: ". . . . failing to prevent such births would be nothing short of a sin against God and man . . ."

Rabbi Mann of Chicago Sinai Temple is considered one of the outstanding — and at times most controversial — spokesmen on the moral issues of his Faith. He is co-founder of the Planned Parenthood Association.

Thalidomide frequently causes phocomelia in pregnant women. The drug never passed the United States standards and its sale is, therefore, illegal. The drug carries with it the possibility, in fact the probability, of the infant having neither hands nor feet.

The question has been raised as to whether or not these innocent women should be forced to go through the ordeal of childbirth which in all likelihood would be tragic beyond words. They could and should be spared by having three great physicians of unquestioned integrity grant them the privilege of abortion.

If God is love and mercy as religion teaches, it seems to me that failing to prevent such births would be nothing short of a sin against God and man as these victims would be a burden to themselves, a physical heartache to their dear ones, and possibly, a financial burden that would cause neglect to the normal children of the family. From my point of view, this would not only be a sin, but an *unforgivable* sin in religion, not only a crime but an *unspeakable* crime against society.

For Illinois in the next 9 months to a year, to take care of this emergency, abortions should be legalized as an exception to the law so that crippled and maimed children should not be born to the harm of their families and society.

Our answer to this question will also answer another: are we civilized?

Illinois Medicine : Historical Sketches

First of a New Series

The German Medical Society of Chicago

1897 to the Present (Part 1—Concluded Next Month)

Eugene F. Lutterbeck, M.D.,* and H. L. Widenhorn, M.D.,** *Chicago*

The German Medical Society of Chicago was founded in 1897, making it the oldest of the city's foreign-speaking medical societies.

Political events in Europe and in the United States have greatly influenced the history and development of this Society. The waves of German immigration to the New World after the collapse of the first German Revolution in 1848, the second in 1918, the Hitler Revolution in 1933, and its downfall after World War II, brought the largest number of German-speaking physicians to this country.

The Preliminary Years: 1857 to 1897

Although the present Society was organized in 1897, its beginnings can be traced back to the year 1857.

Among the German physicians who came to this country after the German Revolution of 1848 was Dr. William Wagner (1825-1872). He was a member of a group of German revolutionists who took part in a political uprising in the Grand Duchy of Baden. Dr. Wagner was graduated from the medical faculty of the University of Wuerzburg in 1848, and fled to the United States the same year, along with Carl Schurz and Franz Sigel.

For a brief period Dr. Wagner stayed in Utica, New York, and settled in Chicago in 1849. He was put in charge of a smallpox hospital here, and in 1857 became a member of the first medical staff of a newly reorganized city hospital. That same year he founded a German Medical Society of Chicago and became its first President. He stated at that time, that a project close to his heart was the establishment of an organization where medical matters could be "discussed in his native tongue among kindred spirits."

From 1861 to 1863, Dr. Wagner served as a commissioned Major and Surgeon of the 24th Illinois Volunteer Infantry in the Civil War. He was twice the Coroner of the City of Chicago, and was among the first organizers of the Cook County Hospital in 1866.

The first Vice-President of the German Medical Society was Dr. Ernest Schmidt (1830-1900). Dr. Schmidt was born in Bavaria and took active part in the German Revolution of 1848. He came to Chicago in 1857.

Dr. Schmidt received an appointment to the Humboldt Medical College of St. Louis in 1860, which was the first medical college in the United States with a graduation system requiring three years of college education. With the outbreak of the Civil War, he entered the Union Army as a Surgeon of the 2nd Missouri Volunteers, and returned to Chicago in 1864. He served as Coroner to the City of Chicago and with Dr. Wagner chartered the Alexian Brothers Hospital in Chicago in 1867.

It is interesting to learn that Dr. Schmidt and Dr. Ralph N. Isham were the first sponsors of a Jewish Hospital in Chicago, in 1869, at the corner of Schiller Street and La Salle Avenue.

*President, German Medical Society of Chicago, Professor of Radiology, Cook County Graduate School of Medicine, and Associate in Radiology, Northwestern University Medical School, Chicago.

**Past President, German Medical Society of Chicago and Associate Clinical Professor of Surgery, Stritch School of Medicine, Loyola University, Chicago.

This was the nucleus of the present Michael Reese Hospital.

Dr. Schmidt organized a German-American Dispensary in Chicago in 1873. He was also active politically and ran for Mayor of Chicago on a Social Democratic ticket in 1879.

Dr. Schmidt died in Chicago in 1900, was survived by three sons, among them were the well-known Drs. Otto L. and Louis Schmidt.

The first German Medical Society functioned in Chicago from 1857 to 1879. In 1875, its meetings were attended by North and South Germans, Swiss and Austrian physicians. Prominent members at that time were Drs. Henry Banga, Christian Fenger, Gustav Hessert, and Henry Gradle.

Dr. Henry Banga (1848-1913), a graduate of the University of Basel, served as volunteer surgeon of the German Army during the War with France in 1870 and came to Chicago in 1875. He was a pioneer in asepsis and antisepsis and served for more than 30 years as a Professor of Gynecology at the Chicago Policlinics, and as Attending Physician at Michael Reese Hospital.

Dr. Christian Fenger (1840-1902) came from Denmark and was a graduate of the University of Copenhagen. He served as a Surgeon in the German Army during the war with France and came to Chicago in 1875. He was Professor of Surgery at the College of Physicians and Surgeons at Northwestern University and Rush Medical College. Dr. Fenger introduced antiseptic surgery at the Cook County Hospital.

Dr. Henry Gradle (1855-1911) a disciple of Robert Koch, was one of the leading ophthalmologists in the Middle West. He was born in Frankfurt, Germany and graduated from the Chicago Medical College in 1874.

The German Medical Society became defunct in 1879, due to a heated discussion over a paper given by Dr. Banga on the antiseptic treatment of wounds. The criticism of Dr. Banga's work made further meetings impossible. It took 18 years until the Society was revived.



EDWIN KLEBS (1834-1913) Berlin, 1857. Founder and President of the German Medical Society of Chicago 1897-1900; Professor of Pathology, Rush Medical School and the Postgraduate Medical School. Discoverer of the diphtheria bacillus. (Photo courtesy National Library of Medicine.)

The German Medical Society From 1897 to 1914

The present German Medical Society was organized on February 13, 1897 when 15 German-speaking physicians of Chicago formed a *Deutsches Medizinisches Kraenzchen* (German

Medical Circle) at the Bismarck Lokal in Chicago. These founders were the Drs. Carl Beck, Emil and Joseph Beck, Heinrich Geiger, Heinrich Harms, Carl Herz, Edwin Klebs, A. Memmelsdorf, Theodor Ralphs, Emil Ries, W. H. Rumpf, Alfred Schalek, Alfred Schirmer and Gustav Schirmer and Carl Strueh.

Professor Edwin Klebs (1834-1913), its first President, has been called "one of the most original spirits in modern medicine." Born in Konigsberg, he was Rudolf Virchow's Associate from 1861 to 1866 and taught pathology at the University of Bern, Wuerzburg, Prag and Zurich. He came to the United States in 1894. Dr. Klebs was the discoverer of the diphtheria bacillus and the co-discoverer of the typhoid bacillus. He was Professor of Pathology at Rush Medical College and the Post Graduate Medical School. Dr. Klebs remained in Chicago until 1900, returned to Europe because of ill health and died in Bern, Switzerland in 1913.

The famous brothers, Drs. Carl, Emil and Joseph Beck contributed a great deal to Chicago's progress in medicine and surgery. All were born in Bohemia. Dr. Carl Beck was Professor of Surgery at the Cook County Graduate School of Medicine and served the German Medical Society as President from 1902 to 1903. Dr. Emil Beck was a well-known early pioneer in the field of radiology and a charter member of the American Roentgen Ray and Radium Society. Dr. Joseph Beck became famous in the field of otolaryngology. He was Associate Professor at the University of Illinois, published numerous scientific articles and became known for the design of the "Beck Tonsillectomy Instrument" which is still widely used.

The *Deutsches Medizinisches Kraenzchen* became officially the German Medical Society of Chicago in 1899 when representatives made a special trip to Springfield to incorporate the society in the State of Illinois.

Meetings were held monthly. The official language was German and only German-speaking physicians were eligible for membership. The purpose of the Society was to hold scientific meetings, and to promote friendship and cooperation among its members.

In these early days the members of the Society frequently went abroad to visit hospitals and research institutions. It was particularly pointed out by Dr. Joseph Beck that too much emphasis on practical work prevailed in the United States in those years, and the basic sciences and theoretical subjects were neglected. The members who returned from Europe used to give lectures and reports about their experiences to their colleagues. The proceedings of the Society were published in the New York Medical Journal and in several German medical journals. In 1899, the Society had 43 members.

Most active in these early days were Drs. Emil Ries, Gustav Schirmer, Maximilian Herzog, Jacques Holinger and David Lieberthal.

Dr. Emil Ries was Professor of Obstetrics and Gynecology of the University of Illinois, and a well-known authority in his field. Dr. Maximilian Joseph Herzog (1848 to 1918) came to the United States in 1882 after studying at the Universities of Giessen, Strassburg and Marburg. He was a well-known pathologist in Chicago, was Professor of Pathology at Loyola University and on the staff of Michael Reese, Alexian Brothers, and several other Chicago hospitals. In 1914, he became chief pathologist of Cook County Hospital. From 1905 to 1906, he served as Pathologist in the Philippines to study tropical diseases. He also spent some time in Japan to study beri-beri and reported extensively to the Society on his interesting work.

A very active and famous member was Dr. Jacques Holinger, President (1912-1913), a graduate of the University of Basel and later Professor of Otolaryngology at the University of Illinois and at Northwestern University. He wrote a textbook on otology and numerous research papers.

Dr. David Lieberthal, who served the German Medical Society as President from 1913 to 1914 and again from 1927 to 1930 was a graduate from the University of Vienna. He was Professor and Chairman of the Department of Dermatology at the Illinois Medical College from 1900 to 1910 and of Loyola Medical School from 1910 to 1914. He was on the active staff of Michael Reese Hospital from 1898 to 1933 and practiced dermatology in Chicago until his death in 1953.

The Society was in close contact with the German-speaking consular corps in Chicago and took part in various social events. A dele-

gation was present at the reception of His Majesty Prinz Heinrich of Prussia at the occasion of his official visit to Chicago on January 16, 1902.

Meetings were held at the Bismarck Hotel, and not only members participated, but also visitors from Germany, Austria and Switzerland. Among these prominent guests were Professors Carl vonNoorden, Frankfurt; Gustav Killian, Freiburg; Ernst Kuester, Breslau and Professor Fuetterer from Vienna. The Society gave these prominent scientists the opportunity to speak in their mother tongue to American colleagues, who in turn made every effort to acquaint them with the medical institutions and universities of Chicago.

German scholarship was highly recognized in those days, particularly in the field of medicine. In 1904, the University of Chicago celebrated its 50th convocation. Delegates of the German Medical Society were invited to participate at the exercises, which were held "In recognition of the indebtedness of American univiersities to the ideals of German scholarship."

The German Medical Society During World War I

During World War I, the Society was able to continue its meeting from 1914 to 1917 under the Presidencies of Dr. David Lieberthal, Professor of Dermatology at Loyola University, Dr. Joseph Zeisler, Professor of Dermatology at Northwestern University, Dr. Ernest Sauernhaus and Dr. Albert Luckhardt, Professor of Neurology at the Chicago Policlinics.

Meetings were moved from the old Bismarck Hotel to the Kaiserhof (known today as the Atlantic Hotel). The Society had 52 members and it was the general feeling that the German-speaking physicians of the city should hold together.

Among the most prominent speakers were Dr. Heinrich Schmitz, Professor of Obstetrics and Gynecology at Loyola University who reported on the "Value of Radium in Treatment of Cancer of the Cervix"; Dr. Charles Sumner Bacon, Professor of Obstetrics and Gynecology at the University of Illinois spoke on "The Transmission of Tuberculosis from Mother to Fetus"; Dr. Julius Grinker, Professor of Nervous Diseases at Northwestern University who discussed Freud's psychoanalysis; and Dr. Franz Hubeney, Professor of Radiology at the University of Illinois who spoke on "Roentgen Examinations of the Chest."



JACQUES HOLINGER (1865-1934) Basel 1890. President of the German Medical Society of Chicago 1912-1913; Professor of Otolaryngology, University of Illinois, College of Medicine and Northwestern University Medical School.

From 1917 to 1919 no official meetings were held. A number of physicians left the ranks of the Society for political reasons when the United States entered the war against Germany and Austria in 1917. Many members served in the American Military forces during this conflict.

(Concluded in October Issue)

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Editorials

A Simple, Common Name*

During his recent Message on Protecting the Consumer Interest, President Kennedy urged that drugs be given a "simple, common name in order to avoid confusion and to enable the purchaser to buy the quality drugs he actually needs at the lowest competitive price."

From this statement, the consumer might easily assume two things — that no efforts are made at present to give drugs simple, common names in addition to their brand names and that, if this were done, drug prices would be lower. But both of these assumptions would be incorrect.

At present, the common names of drugs are decided by a well-thought-out system in which a number of scientific agencies, both national and international, participate. Every effort is made to find a simple name, but it is absolutely essential that the name adhere to basic principles of scientific nomenclature. If not, the names will be meaningless to the medical profession and to scientists generally.

Usually the common name reflects the chemical make-up of the drug; and since the chemical name is often long and complicated, the common name may have to be far from simple. No one has suggested a way to avoid this difficulty.

Moreover, the use of common names does not assure that a drug will be cheap. For example, the Rhode Island Division of Public Assistance examined 10,000 drug prescriptions for welfare recipients for the purpose of determining the actual savings to the State if drugs were prescribed by their common names instead of their trademark names. It was found that by using common names, a saving of *less than five per cent* would have resulted.

Government pressure on the medical profession to prescribe medicines under their common names instead of their brand names is based on the theory that different versions of the same drug, produced by different companies, are of equal quality. *It would be hard to find a more dangerous fallacy.*

This fallacy is based on the theory that the therapeutic performance of a medicine can be predicted solely by carrying out the United States Pharmacopeia assay for determining the drug content. But this is not necessarily so. Almost all pharmaceutical products contain ingredients other than the active drug, and the manufacture of these products involves such steps as mixing, compressing, coating, heating, filtering. Any of these operations, if improperly controlled, may significantly affect the therapeutic performance of the medicine without the assay showing any deviation of the drug content from "official standards."

Several studies of the subject have revealed that two drugs having the same active ingredients may affect patients in different ways. "Indiscriminate changing of brands may actually become a life or death matter," according to Dr. Eino Nelson, of the University of California Medical Center of San Francisco.

Simple, "common names" — especially for drugs of complicated chemical structure — will

be hard to find. Even if this obstacle is overcome, there is little or no reason to think that the use of common names will result in lower drug prices. And what is most important, the general use of such names would almost certainly bring about a dangerous compromise in the quality of our medicines.

*Reprinted from "Commentary 4," Smith, Kline & French Laboratories, Philadelphia.

No Phocomelia in Illinois from Kevadon

A state-wide survey, conducted jointly by the Illinois State Medical Society's Maternal Welfare Committee and the Illinois Department of Public Health, reveals not one case of phocomelia resulting from the use of the tranquilizing agent thalidomide.

In fact, the only pregnant women reported to have received the so-called crippling pill in Illinois were 14 "down-state" women who were in their last month of pregnancy. All gave birth to normal children and reported no significant side effects.

The study, compiled from reports submitted by 77 of the 81 Illinois doctors who tested the drug, discounted the Franklin Park and Evanston deformity cases because the Franklin Park woman reportedly took Contergan purchased in Germany, and there exists no clinical evidence that the Evanston woman ever used Contergan or Kevadon, trade names for thalidomide.

Since the tablets were distributed by the William S. Merrell Co. for general medical cases, a great majority of the doctors reported they only administered them to persons 55 years and older. Aside from the above 14 cases, very few women of child-bearing age received them.

Surgical Correction of Facial Palsy

Surgery is needed frequently to correct the facial palsy following total removal of a tumor of the eighth cranial nerve. According to Love[1] some surgeons recommend a plastic procedure to prevent sagging of the facial musculature, but the majority of neurosurgeons prefer and recommend nerve anastomosis. The nerve most frequently employed is the hypoglossal or the spinal accessory. Phrenicofacial anastomosis also is successful.

But something must be sacrificed to improve the facial appearance and function. The use of the hypoglossal nerve for example, means that the face moves whenever the individual uses the tongue when talking or eating. In addition there is ipsilateral atrophy of the tongue. The side effects are perhaps the least bothersome when using the spinal accessory.

Love recently removed a tumor of the eighth cranial nerve with unavoidable sacrifice of the intercranial portion of the facial nerve. An anastomosis is to the facial nerve was attempted with the spinal accessory nerve but the total nerve was too large for an end to end connection. It was made up of three bundles of fibers and stimulation of each bundle caused contraction of the sternocleido-mastoideus muscle. He decided to use only one of the bundles and the results have been excellent. The patient has no weakness or atrophy of the muscles normally supplied by the spinal accessory nerve.

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"It happened during 'Ben Casey'. I wonder if our hospital insurance will cover it?"

Reference Page Number 34

Guide to Resources For Neurological Disorders

I CLINICS

A. Cerebral Palsy

Chicago

Cerebral Palsy Clinic
Cook County Hospital (Fantus Clinic)
519 S. Wolcott Ave.

Cerebral Palsy and Perceptual Impairment Clinic
Mt. Sinai Hospital
1519 S. California Ave.

Cerebral Palsy Clinic
Michael Reese Hospital (Mandel Clinic)
29th St. at Ellis Ave.

B. Epilepsy Clinics

Chicago

Children's Memorial Hospital Clinic
707 W. Fullerton Ave.

Cook County Hospital (Fantus Clinic)
519 S. Wolcott Ave.

Illinois Neuropsychiatric Institute
912 S. Wood St.

Mercy Hospital (Free Dispensary)
2526 S. Calumet Ave.

Michael Reese Hospital (Mandel Clinic)
20th St. at Ellis Ave.

Mt. Sinai Hospital (Dispensary)
1519 S. California Ave.

Northwestern University Medical School Clinics
747 Fairbanks Ct.

Presbyterian-St. Luke's Hospital (Dispensary)
1745 W. Harrison St.

University of Chicago Clinics
950 E. 59th St.

Evanston

Evanston Hospital (Outpatient Dept.)
2650 Ridge Ave.

Rockford

Rockford Memorial Hospital
2400 N. Rockton

Springfield

Memorial Hospital
1st and Miller Sts.

St. John's Hospital
701 E. Mason St.

C. Mental Retardation

Chicago

Chicago School for Retarded Children
6050 N. California Ave.

Dr. Julian D. Levinson
Research and Treatment Center for Mentally Retarded Children

Cook County Hospital
1850 W. Harrison

Loyola Center for Guidance
820 N. Michigan Ave.

Mental Health Center
2449 W. Washington Blvd.

Elgin

Fox Valley Mental Health Clinic
932 N. Spring St.

LaGrange

Southwest Suburban Mental Health Clinic
23 W. Calendar Ave., Suite 207

Winnetka

North Shore Mental Health Clinic
554 Lincoln Ave., Room 202-8

D. Multiple Sclerosis

Chicago

Multiple Sclerosis Clinic
Northwestern University Medical School Clinc
747 Fairbanks Ct.

E. Neuro-ophthalmology and Neuro-otology

Chicago

Illinois Eye and Ear Infirmary
904 W. Adams St.

F. Neurology Clinics

Chicago

Children's Memorial Hospital Clinic
707 W. Fullerton Ave.

Cook County Hospital (Fantus Clinic)
519 S. Wolcott Ave.

be hard to find. Even if this obstacle is overcome, there is little or no reason to think that the use of common names will result in lower drug prices. And what is most important, the general use of such names would almost certainly bring about a dangerous compromise in the quality of our medicines.

*Reprinted from "Commentary 4," Smith, Kline & French Laboratories, Philadelphia.

No Phocomelia in Illinois from Kevadon

A state-wide survey, conducted jointly by the Illinois State Medical Society's Maternal Welfare Committee and the Illinois Department of Public Health, reveals not one case of phocomelia resulting from the use of the tranquilizing agent thalidomide.

In fact, the only pregnant women reported to have received the so-called crippling pill in Illinois were 14 "down-state" women who were in their last month of pregnancy. All gave birth to normal children and reported no significant side effects.

The study, compiled from reports submitted by 77 of the 81 Illinois doctors who tested the drug, discounted the Franklin Park and Evanston deformity cases because the Franklin Park woman reportedly took Contergan purchased in Germany, and there exists no clinical evidence that the Evanston woman ever used Contergan or Kevadon, trade names for thalidomide.

Since the tablets were distributed by the William S. Merrell Co. for general medical cases, a great majority of the doctors reported they only administered them to persons 55 years and older. Aside from the above 14 cases, very few women of child-bearing age received them.

Surgical Correction of Facial Palsy

Surgery is needed frequently to correct the facial palsy following total removal of a tumor of the eighth cranial nerve. According to Love[1] some surgeons recommend a plastic procedure to prevent sagging of the facial musculature, but the majority of neurosurgeons prefer and recommend nerve anastomosis. The nerve most frequently employed is the hypoglossal or the spinal accessory. Phrenicofacial anastomosis also is successful.

But something must be sacrificed to improve the facial appearance and function. The use of the hypoglossal nerve for example, means that the face moves whenever the individual uses the tongue when talking or eating. In addition there is ipsilateral atrophy of the tongue. The side effects are perhaps the least bothersome when using the spinal accessory.

Love recently removed a tumor of the eighth cranial nerve with unavoidable sacrifice of the intercranial portion of the facial nerve. An anastomosis is to the facial nerve was attempted with the spinal accessory nerve but the total nerve was too large for an end to end connection. It was made up of three bundles of fibers and stimulation of each bundle caused contraction of the sternocleido-mastoideus muscle. He decided to use only one of the bundles and the results have been excellent. The patient has no weakness or atrophy of the muscles normally supplied by the spinal accessory nerve.

REFERENCES

1. Love, J. Grafton: Surgical Treatment of Facial Paralysis: A Modification of Spinofacial Anastomosis. Staff Meet. Mayo Clin. 37:404 (July 18) 1962.



"It happened during 'Ben Casey'. I wonder if our hospital insurance will cover it?"

Reference Page Number 34

Guide to Resources For Neurological Disorders

I CLINICS

A. Cerebral Palsy

Chicago
Cerebral Palsy Clinic
Cook County Hospital (Fantus Clinic)
519 S. Wolcott Ave.

Cerebral Palsy and Perceptual Impairment Clinic
Mt. Sinai Hospital
1519 S. California Ave.

Cerebral Palsy Clinic
Michael Reese Hospital (Mandel Clinic)
29th St. at Ellis Ave.

B. Epilepsy Clinics

Chicago
Children's Memorial Hospital Clinic
707 W. Fullerton Ave.

Cook County Hospital (Fantus Clinic)
519 S. Wolcott Ave.

Illinois Neuropsychiatric Institute
912 S. Wood St.

Mercy Hospital (Free Dispensary)
2526 S. Calumet Ave.

Michael Reese Hospital (Mandel Clinic)
20th St. at Ellis Ave.

Mt. Sinai Hospital (Dispensary)
1519 S. California Ave.

Northwestern University Medical School Clinics
747 Fairbanks Ct.

Presbyterian-St. Luke's Hospital (Dispensary)
1745 W. Harrison St.

University of Chicago Clinics
950 E. 59th St.

Evanston
Evanston Hospital (Outpatient Dept.)
2650 Ridge Ave.

Rockford
Rockford Memorial Hospital
2400 N. Rockton

Springfield
Memorial Hospital
1st and Miller Sts.

St. John's Hospital
701 E. Mason St.

C. Mental Retardation

Chicago
Chicago School for Retarded Children
6050 N. California Ave.

Dr Julian D. Levinson
Research and Treatment Center for Mentally Retarded Children

Cook County Hospital
1850 W. Harrison

Loyola Center for Guidance
820 N. Michigan Ave.

Mental Health Center
2449 W. Washington Blvd.

Elgin
Fox Valley Mental Health Clinic
932 N. Spring St.

LaGrange
Southwest Suburban Mental Health Clinic
23 W. Calendar Ave., Suite 207

Winnetka
North Shore Mental Health Clinic
554 Lincoln Ave., Room 202-8

D. Multiple Sclerosis

Chicago
Multiple Sclerosis Clinic
Northwestern University Medical School Clinic
747 Fairbanks Ct.

E. Neuro-ophthalmology and Neuro-otology

Chicago
Illinois Eye and Ear Infirmary
904 W. Adams St.

F. Neurology Clinics

Chicago
Children's Memorial Hospital Clinic
707 W. Fullerton Ave.

Cook County Hospital (Fantus Clinic)
519 S. Wolcott Ave

Illinois Neuropsychiatric Institute
912 S. Wood St.

Mercy Hospital (Free Dispensary)
2526 S. Calumet Ave.

Michael Reese Hospital (Mandel Clinic)
29th St. at Ellis Ave.

Mt. Sinai Hospital (Dispensary)
1519 S. California Ave.

Northwestern University Medical School Clinic
747 Fairbanks Ct.

Presbyterian-St. Luke's Hospital (Dispensary)
1745 W. Harrison St.

University of Chicago Clinics
950 E. 59th St.

Veterans Administration Research Hospital (Outpatient Service)
303 E. Huron St.

Veterans Administration West Side Hospital (Outpatient Service)
820 S. Damen Ave.

Evanston
Evanston Hospital (Outpatient Dept.)
2650 Ridge Ave.

G. Reading Disabilities

Chicago
Dyslexia Memorial Institute, Inc.
339 E. Chicago Ave., Room 407

Institute for Psychological Services
3329 S. Federal St.

H. Speech Problems

Chicago
Central Y.M.C.A. Counseling Center
19 S. LaSalle St.

Evanston
Northwestern University Speech Clinic
Speech Bldg.

Skokie
Orchard School for Retarded Children
8600 Gross Point Rd.

II INPATIENT FACILITIES AND REHABILITATION CENTERS

Chicago
Board of Education of Chicago
Division of Speech Correction
228 N. LaSalle St.

Department of Occupational Therapy
Research and Educational Hospital
University of Illinois College of Medicine
840 S. Wood St.

Home for Destitute Crippled Children
970 E. 49th St.

Illinois Children's Hospital School
2551 N. Clark St.

Illinois Surgical Institute for Children
905 S. Wolcott Ave.

Rehabilitation Institute of Chicago
401 E. Ohio St.

Respiratory Center
Research and Educational Hospital
University of Illinois College of Medicine
840 S. Wood St.

Rest Haven Rehabilitation Hospital
1401 S. California Ave.

School of Physical Therapy
Department of Physical Therapy
Northwestern University Medical School
303 E. Chicago Ave.

Shriners Hospital for Crippled Children (Chicago Unit)
2211 N. Oak Park Ave.

Therapeutic Nursery for Cerebral Palsied Children
Michael Reese Hospital (Mandel Clinic)
29th St. at Ellis Ave.

Downey
Veteran's Administration Hospital

Evanston
Northwestern University Speech and Hearing Clinic
Northwestern University

Hines
Veteran's Administration Hospital

Oak Forest
Oak Forest Hospital
S. Cicero and W. 159th St.

Skokie
Orchard School for Retarded Children
8600 Gross Point Rd.

Springfield
Illinois Superintendent of Public Instruction
Division of Special Education
P.O. Box 906

(MENTAL RETARDATION)

Chicago
Misericordia Home
2916 W. 47th St.

Dixon
Dixon State School

Lincoln
Lincoln State School
861 S. State St.

III SOCIETIES — AGENCIES — FOUNDATIONS

Chicago
American Epilepsy Federation
303 E. Chicago Ave.

Blind Service Association, Inc.
127 N. Dearborn St.

Chicago Hearing Society
30 W. Washington St.

Chicago Lighthouse for the Blind
1850 W. Roosevelt Rd.

Chicago Metropolitan Unit of the Illinois Association for the Crippled
116 S. Michigan Ave.

Ephphata Center and Hearing Conservation Service
330 W. Wellington St.

Free Sons Cerebral Palsy Foundation
207 S. Wabash Ave.

Illinois Council for Mentally Retarded Children
343 S. Dearborn St.

Muscular Dystrophy Associations of America, Inc.
Greater Chicago Chapter
203 N. Wabash Ave.

Myasthenia Gravis
Cook County Chapter
111 W. Washington St.

National Epilepsy League, Inc.
208 N. Wells St.

National Foundation
Cook County Chapter
37 S. Wabash Ave.

National Multiple Sclerosis Society
Chicago Chapter
332 S. Michigan Ave.

National Parkinson Foundation, Inc.
Greater Chicago Chapter
P.O. Box 3001

Merchandise Mart
National Society for Crippled Children and Adults, Inc.
2023 W. Ogden Ave.

Spastic Children's Center
127 N. Dearborn St.

Tay-Sachs Society
6811 S. University Ave.

Thresholds (National Council of Jewish Women)
1153 N. Dearborn St.

United Cerebral Palsy of Greater Chicago
203 N. Wabash Ave.

Park Ridge
Northwest Suburban Aid for the Retarded
31 Grace St.

(MENTAL RETARDATION)

Addison
Lutheran Child Welfare Association

Berwyn
Berwyn Family Service
6641 Stanley Ave.

Chicago
Mental Health Centers
2449 W. Washington Blvd.

Salvation Army Family Service Division
10 E. Pearson St.

Glencoe
Family Service of Glencoe
675 Village Ct., Village Hall

Glen Ellyn
Family Service Association of DuPage County
Professional Arts Bldg., Room 214

Highland Park
Family Service of Highland Park
720 Central Ave.

Maywood
Family Service Association of Proviso Township
850 S. 17th Ave., Room 2

Mt. Prospect
Northwest Family Service Association
214 S. Emerson St.

Oak Park
Family Service Association of Oak Park and River Forest
124 S. Marion St.

Waukegan
Family Service Agency of Waukegan, North Chicago, Inc.
114 N. Genesee St.

Wilmette
Family Service Agency of Wilmette, Glenview, Northbrook and Kenilworth
1167 Wilmette Ave.

Winnetka
Family Service of Winnetka, Northfield, Inc.
614 Lincoln Ave.

IV SPECIAL EDUCATION

Chicago
Bell School
3720 N. Oakley Ave.

Burbank Unit for Crippled Children
2035 N. Mobile Ave.

Department of Special Education
Board of Education of Chicago
228 N. LaSalle St.

Francis W. Parker Elementary School
6800 S. Stewart St.

Francis W. Parker High School
6800 S. Stewart St.

John A. Neil Unit for Crippled Children
8555 S. Michigan Ave.

Spaulding School for Crippled Children
1628 Washington Blvd.

Walter S. Christopher School for Crippled Children
51st and Artesian Ave.

V VOCATIONAL SERVICES

Chicago
Board of Education of Chicago
228 N. LaSalle St.

Chicago Lighthouse for the Blind
1850 W. Roosevelt Rd.

Cook County Department of Public Aid
Welfare Rehabilitation Service
1327 W. Washington Blvd.

Goodwill Industries of Chicago
1500 W. Monroe St.

Illinois Institute of Technology
Institute for Psychological Services
3329 Federal St.

Jewish Vocational and Employment Center
1 S. Franklin St.

State of Illinois
Vocational Service
160 N. LaSalle St.

U.S. Department of Health, Education and Welfare
Office of Vocational Rehabilitation
433 W. Van Buren St.

This listing does not necessarily indicate an endorsement by the Illinois State Medical Society.

from the Illinois Medical Journal
SEPTEMBER, 1962

GRAVIDA 3
PARA 0

when abortion
threatens, habitually...

DELALUTIN

SQUIBB HYDROXYPROGESTERONE CAPROATE

Improved Progestational Therapy

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fetal salvage is
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SUPPLY: Vials of 5 cc., each cc. supplying 250 mg. hydroxyprogesterone caproate. Vials of 2 and 10 cc., each cc. supplying 125 mg. hydroxyprogesterone caproate.

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WITH YOUR
ENCOURAGEMENT
AND
DEXEDRINE®
brand of dextro amphetamine
SPANSULE®
brand of sustained release capsules

she's losing weight

'Dexedrine' *Spansule* capsules not only control appetite all day long, but at the same time encourage normal activity. This is particularly important because overweight patients are often inactive. In such patients 'Dexedrine' overcomes lethargy, helps renew their interest in doing things—not just eating.

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INDICATIONS AND DOSAGE: For the following indications, the recommended daily dosage is one or two 'Dexedrine' *Spansule* capsules, usually taken in the morning: control of appetite in weight reduction; depressive states; alcoholism. In narcolepsy, the recommended daily dosage is up to 50 mg. of 'Dexedrine' by 'Spansule' capsule on arising.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Should be used with caution in patients hypersensitive to sympathomimetic compounds; in cases of coronary or cardiovascular disease; and in the presence of severe hypertension.

CONTRAINDICATIONS: Hyperexcitability; agitated pre-psychotic states.

SUPPLIED: 5 mg., 10 mg. and 15 mg., in bottles of 30. (Each capsule contains dextro amphetamine sulfate, 5 mg., 10 mg., or 15 mg.)

Prescribing information adopted January 1961.

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RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

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TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.

Also available without codeine as

'EMPRAZIL'®

TABLETS



BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N. Y.

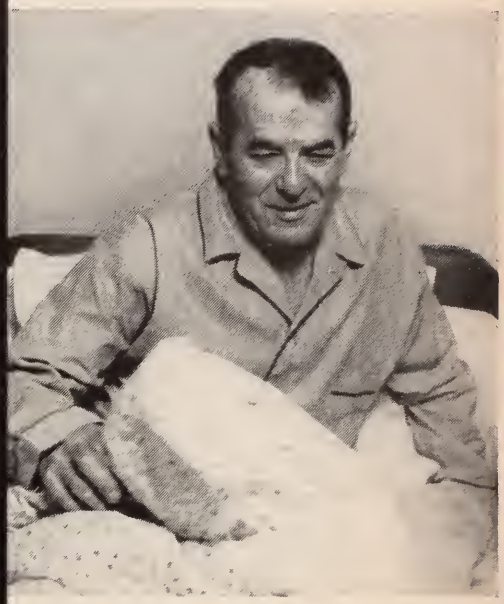


Thanks to 135 tiny "doses" throughout the

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ight, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

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Supplied in bottles of 30 and 100.

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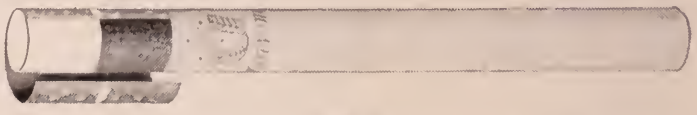
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Literature on request

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AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law allows oral prescription. *Also Available:* Percodan®-Demi: the complete Percodan formula, but with only half the amount of salts of dihydrohydroxycodeinone and homatropine.

Each scored, yellow Percodan* Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl, 0.38 mg. dihydrohydroxycodeinone terephthalate (warning: may be habit-forming), 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine.

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As you know, Safflower Oil is higher in poly-unsaturates and lower in saturated fats than any other type of readily available vegetable oil.

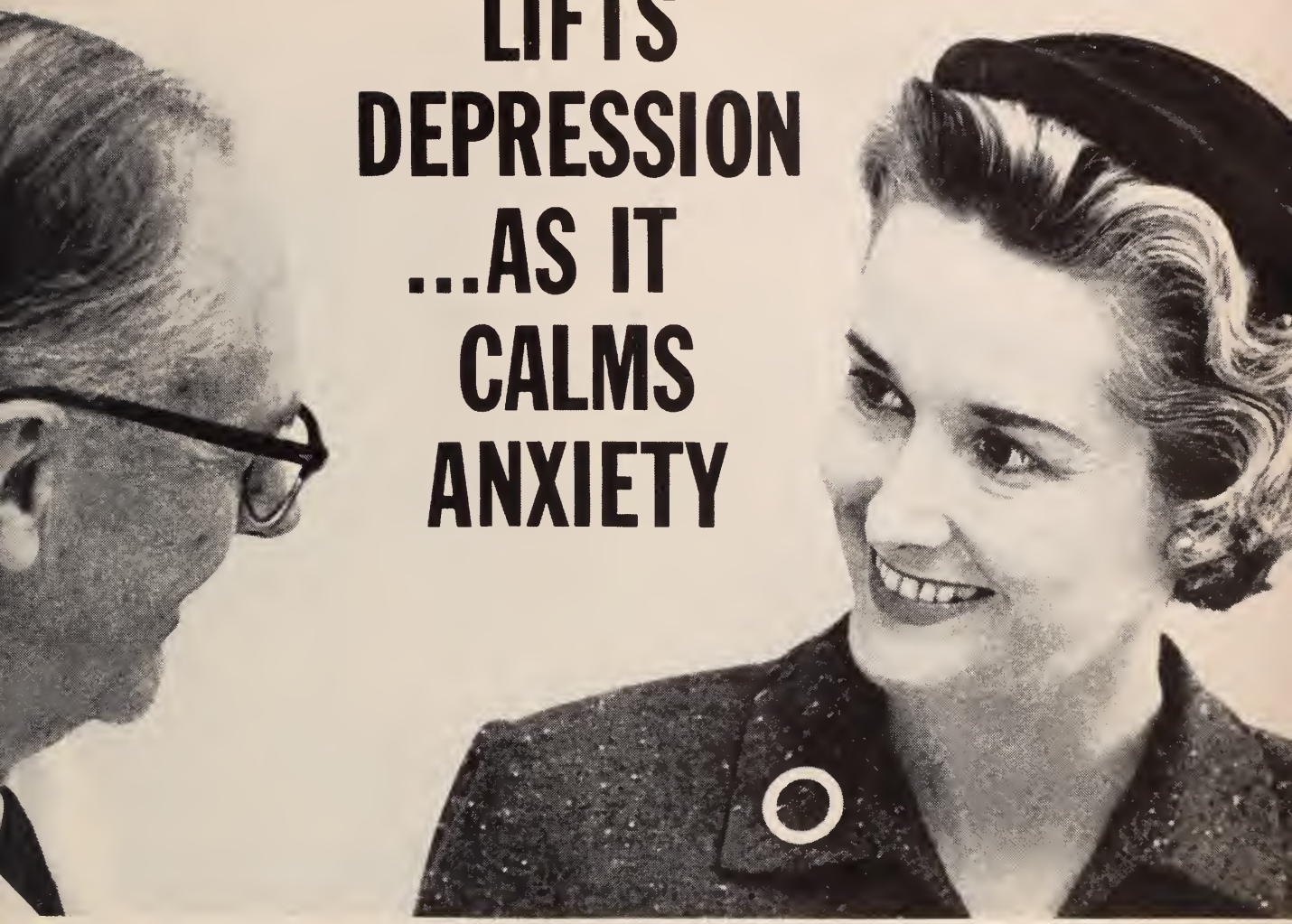
When an increased poly-unsaturated fatty acid intake is desirable, you can recommend Saff-o-life Safflower Oil. You can do so with the assurance that the patient will find it completely appetizing—clear, light and fresh-smelling—and priced at a level which poses no problem.

Ratio of Linoleates* to Saturates
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SAFFLOWER OIL • 9.0 to 1.0
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SOYBEAN OIL • 3.5 to 1.0
COTTONSEED OIL • 2.0 to 1.0
PEANUT OIL • 1.6 to 1.0

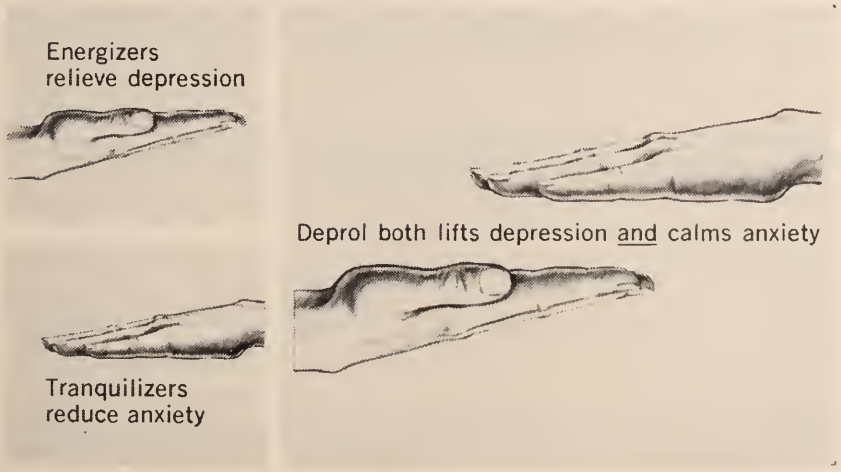
Physicians who wish recipes using Saff-o-life Safflower Oil are invited to write directly to General Mills, Inc. Address your inquiries to Professional Services Director, General Mills, Inc. Dept. 120, 9200 Wayzata Blvd., Minneapolis 26, Minnesota.

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Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light pink, scored tablets.

Write for literature and samples.

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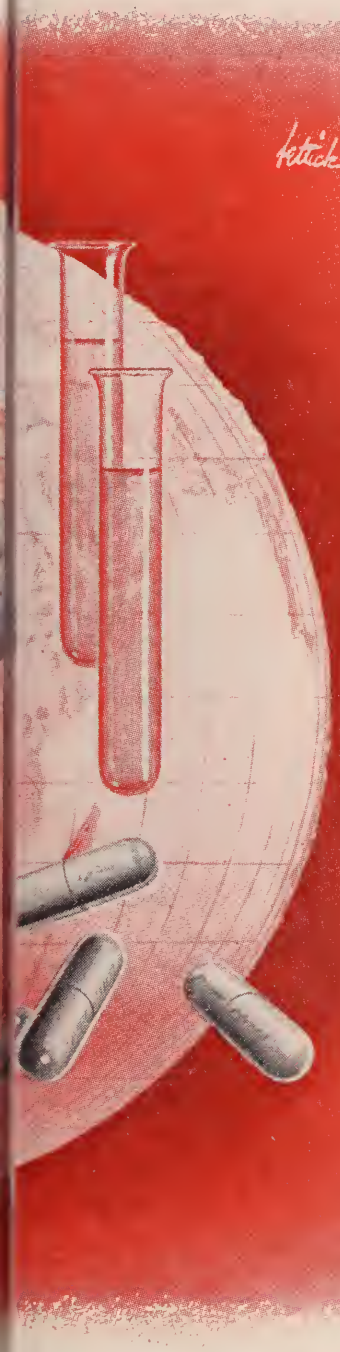
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from boutonneuse fever in Africa

Whether treating boutonneuse fever, bronchopneumonia, or a host of other infections, physicians throughout the world continue to rely on the effectiveness, relative safety, and exceptional toleration of Terramycin in broad-spectrum antibiotic therapy. This continuing confidence is based upon thousands of published clinical reports and successful experience in millions of patients. *The next infection you see will more than likely be "Terra-responsive."*

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IN BRIEF The dependability of Terramycin in daily practice is based upon its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using. *More detailed professional information available on request.*

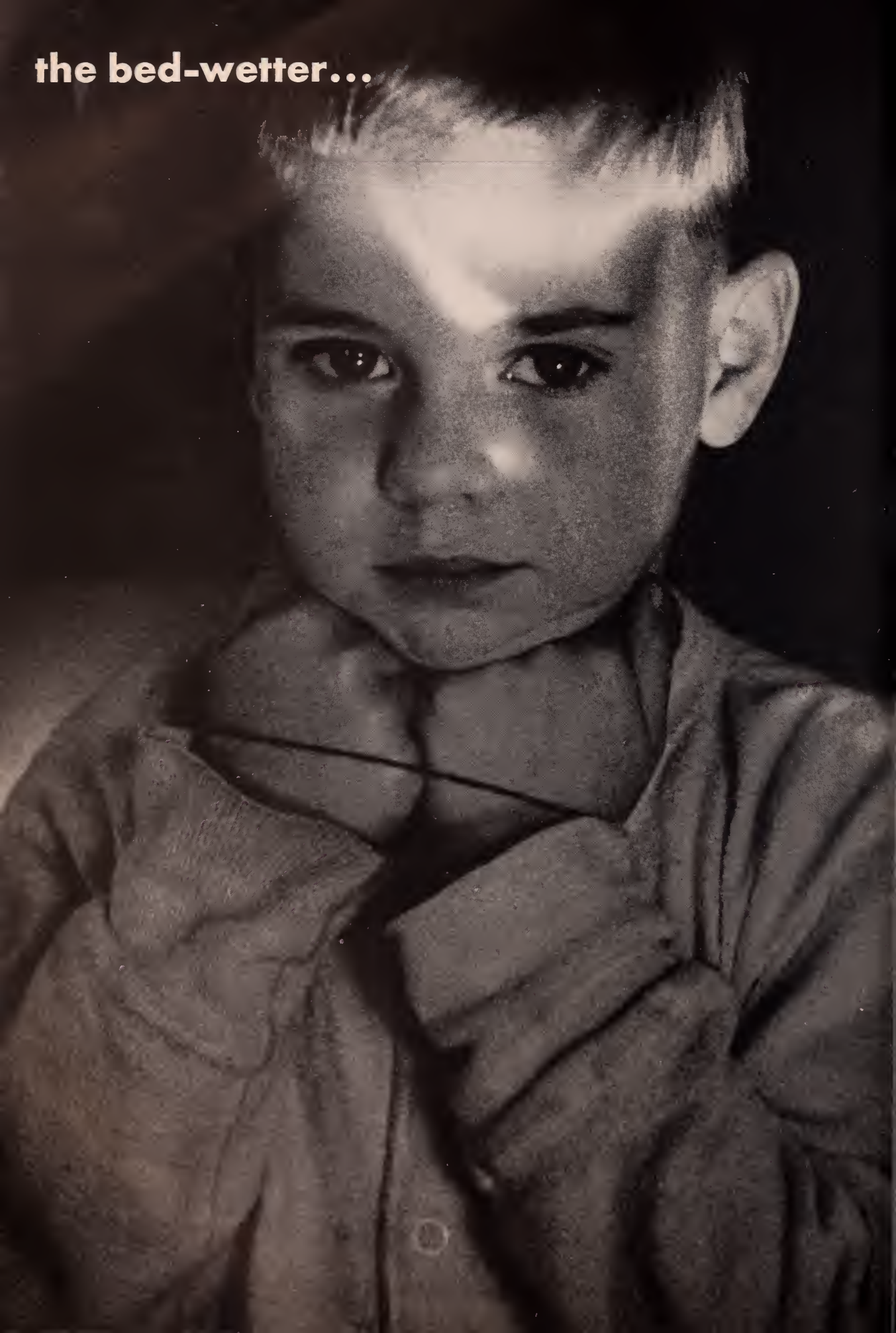
Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

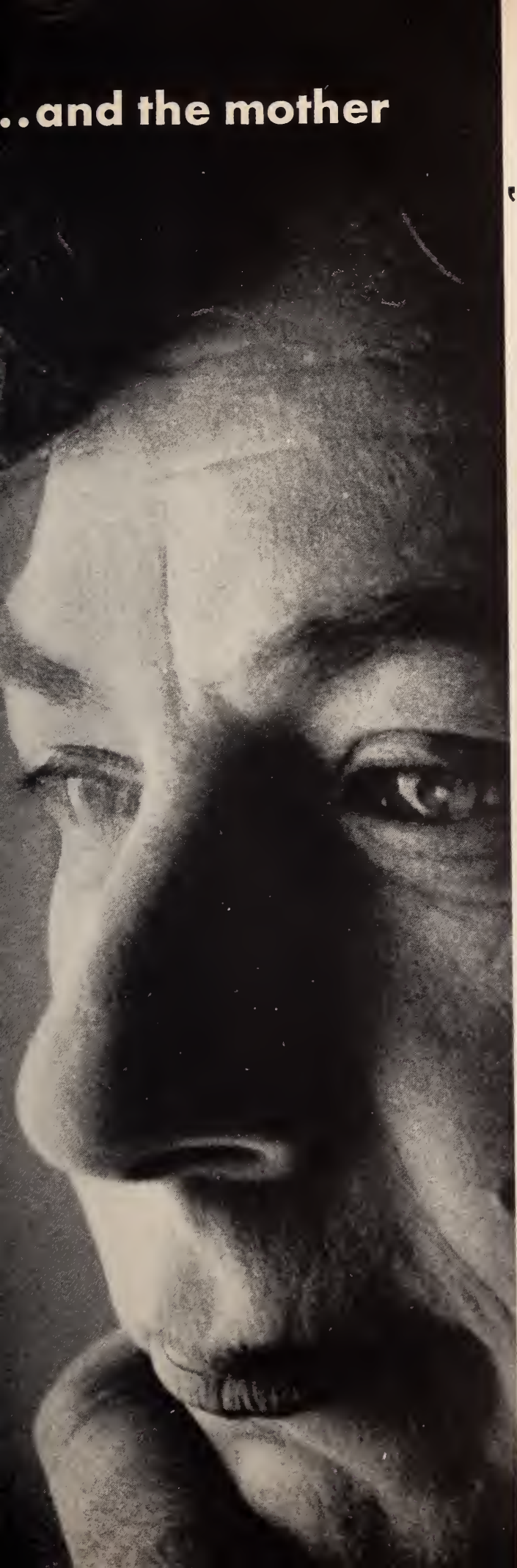
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equally effective for grownups

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and equally well tolerated by patients of any age...no dulling of mental acuity to interfere with normal activities of busy adults

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GUEST EDITORIAL

Chelation Therapy in Atherosclerosis

JOHN H. OLWIN, M.D., and J. L. KOPPEL, Ph.D., *Chicago*

The word chelation is derived from the Greek word "chele" meaning claw. Chelation is the process by which certain chemical agents bind metals to form ring complexes. When such a chelate is formed, the cation becomes an integral part of a stable ring structure and ceases to act as a free ion. The stabilities of the resulting chelates depend upon the cation involved, one which is more weakly bound being displaced by another which is more strongly bound. It is upon this property that the clinical usefulness of chelation therapy depends.

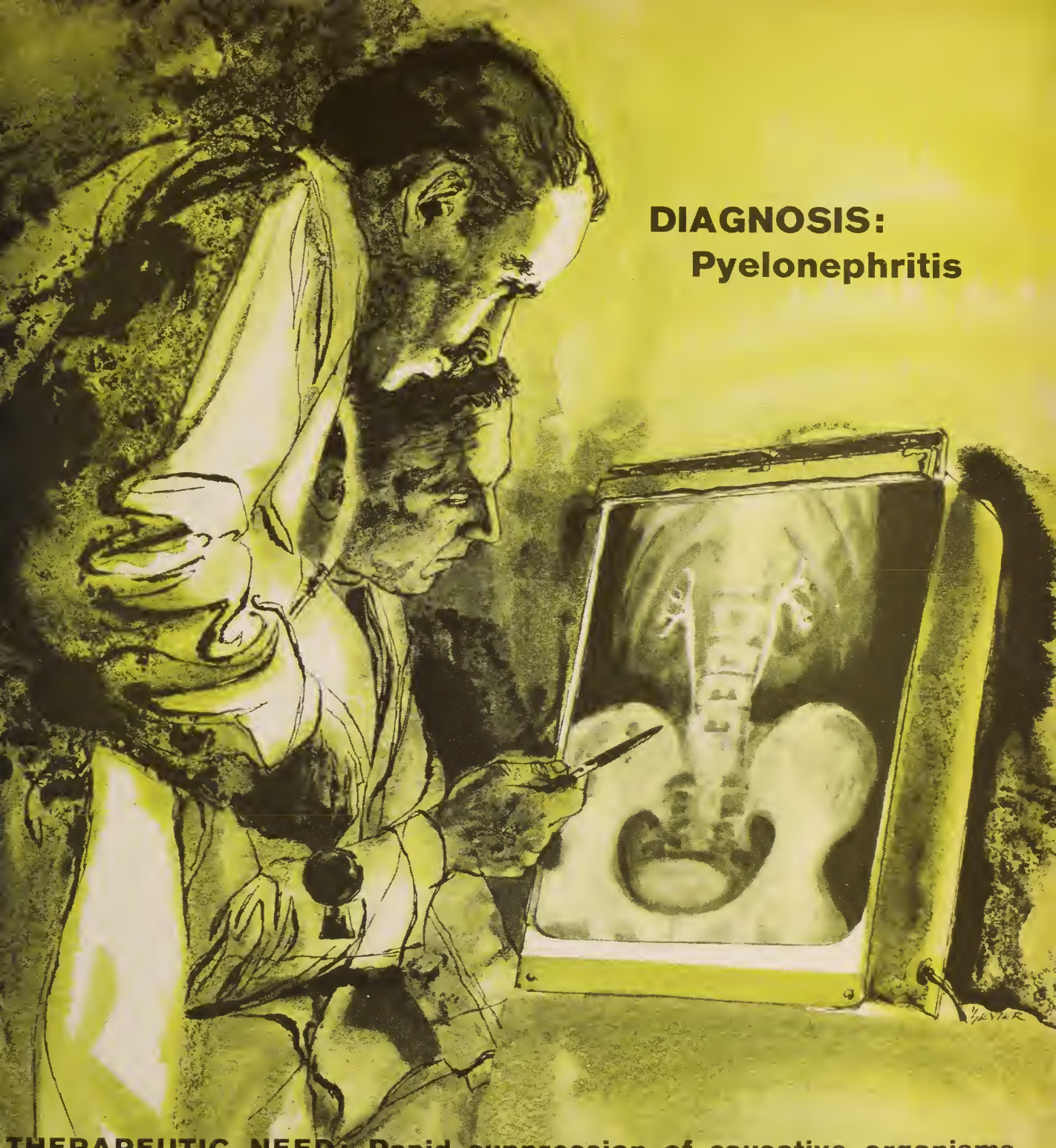
Certain metal ions are essential to normal physiologic functions and their respective concentrations in the cells and body fluids are no doubt as important as their individual presence or absence. On the other hand, there are other metals which may be assimiliated by the body and accumulate as contaminants which may be disturbing elements either by themselves or through their influence on those metals occurring naturally in the organism.

The use of chelating agents in the treatment of certain clinical conditions is not new. It is perhaps best known for its benefits in heavy metal, particularly lead, poisoning. Its use in other conditions, such as scleroderma, porphyria, cardiac arrhythmias, and atherosclerosis in some of its clinical manifestations, is less well known.

With the exception of their influence on heavy metal poisoning, the general and specific mechanisms whereby chelating agents produce their effects are poorly understood. The chemical characteristics of these agents would suggest that in some of the less well-known conditions the effects may be brought about by the binding of one or more trace metals which may play roles in the development of certain disease conditions. Various trace metals are known to be integral parts of certain metallo-enzymes, while others have been shown to act as co-enzymes or catalysts in certain enzymatic processes. Examples of the former are: the presence of copper in ascorbic acid oxidase, uricase and tyrosinase; molybdenum in xanthine oxidase and aldehyde oxidase; and iron in the structure of catalase, peroxidase and cytochrome. Among examples of the second group are: magnesium in the process of phosphorylation; potassium in phosphotransacetylation; manganese, aluminum, cobalt and zinc in various stages of the tricarboxylic acid (Krebs) cycle. Thus, an excess of certain trace metals and/or a deficiency of others may result in a tissue metabolism which is sufficiently disturbed to bring about certain disease states. In present day environment, with the exposure of the individual over many years to smoke from factories, exhaust fumes from automobiles, drinking water delivered through metal pipes, and foods packaged in metal containers, a disturbed metal balance might readily occur, resulting in a poisoning of enzyme systems important for the repair and regeneration of tissue.

It is interesting to speculate on the possible effect of chelation therapy on biological processess such as blood coagulation, atherogenesis and fat metabolism. By their binding of calcium and perhaps other metals, chelating agents are known to act in vitro as anticoagulants. This effect is due in part to the inhibition of the conversion of prothrombin to thrombin, the first stage of the coagulation mechanism. Furthermore, EDTA (ethylenediamine tetra-acetic acid, one of the most widely used and studied of the chelating agents) inhibits the clotting of fibrinogen by thrombin (second stage of coagulation) presumably by blocking the splitting off of the highly charged polypeptides from

From the Coagulation Research Laboratory, Department of Surgery, Presbyterian-St. Luke's Hospital.



DIAGNOSIS:
Pyelonephritis

THERAPEUTIC NEED: Rapid suppression of causative organisms and attention to fluid requirements.

ANTIBIOTIC: DECLOMYCIN®

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because it is highly effective against the common pathogens in G.U. infections.

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Lederle

fibrinogen or by replacing the negative charge on the fibrin monomer as it forms, thereby preventing its polymerization. Such inhibition is reversed by calcium, copper, and cobalt ions and to a lesser degree by magnesium and iron. Of further intrest in this connection is the fact that calcium is required for the normal activity of fibrin stabilizing factor (FSF) which is responsible for the formation of the fibrin polymer (the less soluble type of fibrin normally formed in vivo). Furthermore, recent findings in our laboratory indicate that the formation of this type of clot can be inhibited, at least in vitro, by suitable concentrations of EDTA, thereby giving rise to the more soluble fibrin, presumably by interfering with the activity of fibrin stabilizing factor.

Regarding the effects of chelation therapy on atherogenesis and fat metabolism, it has been established that in the biologically aging artery splitting and fragmentation of the elastic fibers occur, with calcification of the fragments, the amount of calcium deposited being directly proportional to the elastic tissue changes. Calcium is also present in abnormally high concentration in atheromata. It has been suggested that the presence of calcium may depress the availability of magnesium, the latter being possibly related to atherogenesis. For instance, rats on an atherogenic diet developed a magnesium deficiency and atherosclerosis failed to occur when magnesium was added to the diet. Also of possible importance in this connection is the fact that the markedly reduced to absent plasma lipemia clearing activity reported in many atherosclerotic patients has been observed to return to normal or near normal levels when such plasmas are treated in vitro with certain calcium binding agents (citrate, oxalate, and sodium versenate). This phenomenon suggests a potentially normal plasma lipemia clearing system which, in these patients, is held inactive by an inhibitor which is calcium dependent. The correlation of these in vitro effects with similar ones in vivo has yet to be made. Of interest also is the report that the administration of the disodium calcium salt of EDTA to pigeons rendered atherosclerotic by a cholesterol and lipid-rich diet lowered the cholesterol and fatty acid levels and lessened the deposition of sclerotic nodules and the thickness of the lipid infiltrates in the arteries. The mechanism by which serum cholesterol is lowered during therapy remains obscure. One suggestion is that the agent may decrease the capacity of the plasma to carry cholesterol. The fact that it is a temporary reduction and yet the beneficial clinical effects of the therapy appear to continue despite the relatively prompt return of the serum cholesterol to pre-treatment levels would suggest that this effect may not be an important one. The enhanced turnover of calcium in the body fluids and tissues may be a considerably more important effect. It has been suggested that the latter may stimulate the parathyroids to greater activity and thus affect cholesterol deposition, though how this effect comes about is not suggested.

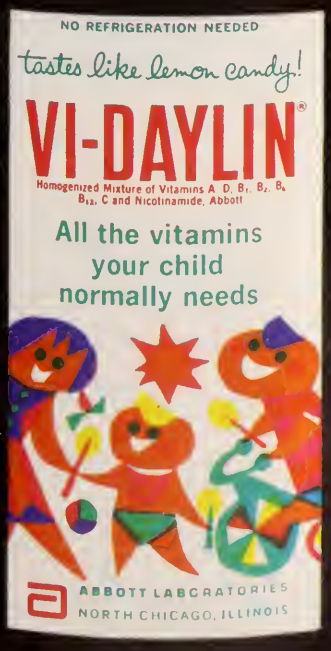
Reports on the use of chelation therapy in atherosclerotic patents are relatively few. The fact cannot be taken lightly, however, that those who have used it in such patients have frequently observed marked improvement in various clinical conditions and their manifestations, such as intermittent claudication, angina pectoris, lowered skin temperatures, retarded hair and nail growth, ischemic ulcers, atherosclerotic dementia, some instances of blindness, and insulin requirement in diabetics. It is also significant that few untoward reactions have been observed when rigid rules for administration of the agents have been followed. The problem at present is two-fold: (1) to find suitable parameters for measuring the effects which these agents appear to bring about, and (2) to discover the chemical and physiologic processes by which they are produced.

Homes Happiest with Minimal Routine

A home is happier with a minimum of ceremonial routines. Children are more inclined to say what they feel and communication between parent and child is freer when divorced from various ritualistic acts. Often the preteenager will break his established, more "grown-up" patterns of behavior, much to the disgust of his parents. But if parents, instead of insisting on expected formalities, would listen to their children for only a few brief moments, they are likely to find a reasonable explanation for the unexpected behavior. *Flanders Dunbar, M.D. Your Preteenager's Mind and Body. New York, Hawthorn Books, Inc., 1962.*



How do the lemons get in the Vi-Daylin?



Perhaps this should be cleared up once and for all. There are *no* lemons in Vi-Daylin. If you've ever tasted Vi-Daylin, this might surprise you. Certainly, it would surprise the youngsters. To most of them, Vi-Daylin is liquid lemon candy, and that's *that*. But if it's deception, it's sensible deception. You never have to badger the kids into taking their vitamins. Nice to know, too, that this matchless matching of candy essence and color elegance can be found in all the forms and formulas of Vi-Daylin.

VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott; VIDAYLIN-M—Homogenized Mixture of Vitamins with Minerals, Abbott; VI-DAYLIN-T—High Potency Multivitamins, Abbott.

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Each delicious, 5-cc. teaspoonful of Vi-Daylin supplies the following proportions of the Minimum Daily Requirements of:

		MDR (Children)	MDR (Infants)
Vitamin A	0.9 mg. (3000 units)	1	2
Vitamin D	10 mcg. (400 units)	1	1
Thiamine HCl (B_1)	1.5 mg.	2	6
Riboflavin (B_2)	1.2 mg.	1⅓	2
Ascorbic Acid (C)	50 mg.	2½	5
Nicotinamide	10 mg.	1⅓	2

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Gentlemen,

My family enjoys your chewable vitimans. It seems like we can not get enough of your vitimans. My sister enjoys your vitimans so much that she ask for more but cannot have no more. I like them because my mother does not have to worry about scolding us when taking it. Its good because you don't have no worries about something falling on the floor. If you kept on making these vitimans all the worlds children would be happy again. Now I would like to know whether I may have any information on the Middle West. You see my class and I are studying it. So if the information can be given I thank you very much.

"...all the worlds children would be happy again."

(an unsolicited testimonial from an actual letter)



ABBOTT



"Nefairy-ous" Compound

An article in the Chinese Medical Journal caught my eye. It was a report on the antihypertensive effect of a traditional preparation er hsein t'ang which means a compound mixture of Two Fairies. It was found previously to be chemically effective in the treatment of hypertension in women. The current study was to determine the hypotensive effect and toxicity of the separate ingredients on dogs. No puns please especially if the next report shows that the compound does not work on hypertensive males.

Young Ideas

The U.S. Department of Health, Education and Welfare is a diversified group. Their data collectors found that there are 35,000 marriages annually in which one or both marriage partners are 65 years of age or older. The older the person the more likely he or she was to choose a much younger mate. This is something we always suspected but it took HEW and our tax money to prove it.

Among the grooms 75 years old or older, 12 per cent chose brides at least 25 years younger than themselves, while only 9.5 per cent of the 65 to 70 year old grooms did so. It takes a smart man to make 75 nowadays and we take off our hat to a man of that age who can convince a young girl of fifty to be his bride — and more so if he is poor or in need of a nurse.

But elderly brides showed a similar pattern; almost 18 per cent of the brides 75 years old or older married men 10 or more years younger while only 7 per cent in the 65 to 70 year age group did so. The final analysis showed that 80 per cent of the women and 45 per cent of the men in the latter age group married persons who were approximately the same age as themselves, we have a hunch that this might apply as well to younger age groups.

To give credit where credit is due we must add that the data was collected by the National Vital Statistics Division of the Public Health Service in a 29 state sample and reported in Aging, a monthly publication of the Special Staff on Aging, U.S. Department of Health, Education and Welfare. They found also that 93 per cent of the brides and grooms in the 65 and over age group had been married at least once before. About 78 per cent of the brides were widows and 73 per cent of the grooms were widowers, 13 per cent of the brides and 18 per cent of the grooms were divorcees. Figures can be deceiving however because the number of women has outnumbered men since 1945. There were 1,382,000 more women in 1955 yet 200,000 more men died in all age groups. The surplus in women is more noticeable in the older age groups where the excess is 40 per cent.

Cause for "Cellebrezze-ion"

The rubella virus was isolated recently by Drs. John L. Sever and Gilbert M. Schiff (and here we go again) of the Perinatal Collaborative Project of the National Institute of Neurological Diseases and Blindness, a part of the National Institutes of Health. This is, as everyone knows, run by the Public Health Service, a division of the U.S. Department of Health, Education and Welfare. Anthony J. Celebrezze

is the new secretary of this agency and he has reason to be proud of this accomplishment. Rubella may not be a major killer but over the years has produced more birth defects than thalidomide. The next step is a vaccine.

Pharmaceuticals

Ciba wants it clearly understood that thalidomide was not first conceived and made by Ciba as Dr. Helen B. Taussig said in her J.A.M.A. article on the German outbreak of phocomelia. Dr. Taussig also incriminated glutethimide (Doriden) by inference when she said in her testimony before the Celler Committee that it was similar in molecular structure to thalidomide. Ciba came back with drawings of the molecular structure showing that their Doriden was more closely related to phenobarbital than to thalidomide. This appears to be true.

Dr. Taussig also exonerates their product by pointing out that during the six years Doriden was used in Switzerland before the introduction of thalidomide there were no instances of phocomelia. The Medical Letter consultants (August 3, 1962) "doubt that the drug is teratogenic. Absolute confidence on such a point is of course impossible, and in view of the disastrous experience with thalidomide, glutethimide should probably never be taken by women of child bearing age.

Hemastix, a new colorimetric "dip-and-read" 60 second test for the detection of hematuria and hemoglobinuria in urine, has been introduced by the Ames Company. It is a firm cellulose strip impregnated at the test end, is white when negative, and when positive, indicates small, moderate, and large amounts of excreted occult blood by a blue color.

Correction

On page 80 of the July, 1962 issue, the trade name for a new antitumor agent by Roche Laboratories was spelled incorrectly. The correct spelling is **Fluorouracil.**

Two Jackson, Michigan, physicians reported a drop in blood pressure in 20 hypertensive patients given **Didrex,** Upjohn's new appetitie suppressing drug. The second switch centered about the use of **Orinase** as a test for early pancreatic cancer. Twenty-five patients suspected of having pancreatic cancer were given both Orinase Diagnostic (sodium tolbutamide) and a three hour standard glucose tolerance test (GTT). The former was more sensitive. Thirteen or 72 per cent of the 18 patients in whom suspected cancer was confirmed at surgery had a positive response in contrast to the GTT which was positive in 11 or 61 per cent.

Clarin, a sublingual heparin potassium, was found to alleviate the discomforts of primary dysmenorrhea in 39 of 58 women, according to Dr. Stanley P. Megryn. He administered the drug on the premise that heparin deficieney could prompt excessive clotting, increasing the intrauterine mass with resulting dysmenorrhea. The study covered three months, and 52 women served as controls, receiving an identically appearing placebo. Sixty-four per cent of those receiving Clarin recorded an improvement as compared with eight per cent of the placebo group.

An hormonal pacemaker was developed by Drs. Judah Folkman and L. Henry Edmunds, Jr. at the Naval Medical Research Institute. They created a complete heart block in 43 dogs and then implanted a thyroid hormone tablet in the myocardium. The pulse rate increased after eight to 12 hours and remained elevated up to 96 hours.

Electrocardiograms confirmed the fact that the faster paecmaker activity arose in the implanted area and that the effect is purely local. Dr. Folkman believes that the hormonal pacemaker is applicable in children who, during open heart surgery for ventricular septal defect, develop temporary heart block occasionally. This plan competes with electronic paecmakers and fibrous encapsulation of thyroid autografts.

What's New

The Colson Corporation, a Chicago concern, has a new line of convertible pediatric stretchers



DISPOSABLE is the key word today because it is cheaper and safer to throw used articles and equipment away. Peel-A-Way Scientific has a new plastic and pliable balance dish that demonstrates this point. It is used in the laboratory and designed to eliminate the cleaning time and breakage of expensive glass dishes. As they say "When contaminated, simply throw them away."

which take up two feet less room than competitive models. They are designed to carry children and can also be converted into cribs.

Alcon Laboratories of Fort Worth introduced a new contact lens wetting solution. The company claims that its new product has better wetting and cleansing action that allows the patient longer wearing time in greater comfort.

The latest product of the J. T. Posey Company is an anti-elbow bending splint for children. It is designed primarily to prevent the youngster from scratching the upper body and face. The splint fits inside the child's elbow. This company is located in Pasadena and specializes in hospital restraint, fracture, and rehabilitation equipment.

A Grave Expense

"Nobody several years ago survived the series of illnesses that I have had," writes George E. Sokolsky, columnist for King Features Syndicate. "If someone tells me that the medicines I carry are expensive I must laugh, particularly when I read circulars advertising graves. I would rather pay for a medicine than a grave any day."

Translations on Russian Medicine

The prevailing view in the Soviet Union is that toxic factors, including virus toxins, lie at the basis of the schizophrenic process. This is the viewpoint presented by the late professor G. Yu. Malis, author of a new book entitled "Research on the Etiology of Schizophrenia."

A leading Soviet surgeon, U. P. Demikhov, summarizes his experience in the field of organ transplantation in his book "Experimental Transplantation of Vital Organs." He concentrates on the anastomosis of blood vessels of the transplant and recipient to provide an adequate blood supply for the transplant. The results of 24 variants of the transplantation of a second, additional heart are described, as are the results of transplantations of the kidneys, of the head, lungs, as well as experiments in which the upper half of one animal is joined to the lower half of another.

Your editor has not read these books to evaluate the results, but they have been translated into English and are available through Consultants Bureau, New York.

Dr. N. N. Blokhin, president of the Soviet Academy of Medical Sciences, was quoted in *Medical Worker* as saying that the Academy is not making enough progress in theoretical research, is doing too little in the field of cancer chemotherapy, lags in endocrinology, and is simply marking time in physiology. Self criticism is good for any group regardless of political beliefs.



"Junior has been in your Gyne books again"

NEWS and ANNOUNCEMENTS



Adams County

Dr. DuPuy Honored

Dr. Newton DuPuy, Chairman of the Board of Trustees of ISMS, has been elected a Fellow of the Society for Academic Achievement, an honor society for secondary schools. Dr. DuPuy has served as a member of the SAA's executive committee since its 1959 establishment. The Society was founded in Quincy by medical and Kiwanis organizations to improve academic output, to secure a college education for every academically talented youth, and to win the cold war in our classrooms.

Cook County

Pilot Medical Program

Jackson Park Hospital initiated a summer program designed for students interested in becoming physicians. The first such program in the Chicago area, it began in late June as a pilot program with six boys — all 1962 high school graduates.

The program results from the concern of the medical profession with the growing number of students interested in medicine as a career who during their college life transfer to other paramedical and scientific areas instead of becoming practicing physicians, according to Dr. Morris T. Friedell, president of the hospital.

The six young men were selected from a field of 22 candidates recommended by career counselors at two south side high schools. The boys were technically employees of the hospital and were paid the same rate as other employees. Their program included a week of orientation, a weekly seminar on different areas of medicine and one full day a week during which each boy was assigned to a physician on the staff, accompanying him on rounds, house calls and office hours.

MD's in the News

Dr. Eric C. Kast, assistant professor of medicine at Chicago Medical School, was invited to speak in Europe on "The Measurement of Pain; Practical and Theoretical Considerations", at the East German Academy of Science, East Berlin, the University of Prague and the International Congress of Internal Medicine in Munich, Germany.

Dr. Angelo P. Creticos has been awarded the Willard O. Thompson Memorial Traveling Scholarship in Endocrinology by the American College of Physicians.

Dr. Matthew Uznanski has been named an Emeritus member of St. Mary of Nazareth Hospital medical staff. A member of the attending staff since 1922. Dr. Uznanski has served as Chief of Obstetrics and Gynecology at the hospital for over 25 years.

Grants

Seven faculty members of the Northwestern University Medical school have been granted a total of more than $62,000 from the American Heart Association. They include:

Dr. O. H. Trippel, assistant professor of surgery, to study the long-term results of various operations for correcting blocking of arteries caused by atherosclerosis.

Dr. E. Clinton Texter, Jr., associate professor of medicine, for studies of the circulation to the intestines.

Dr. F. J. Lewis, professor of surgery, for research to develop new open-heart operations to correct diseases of heart valves.

Dr. H. D. Slade, professor of microbiology, to study streptococcal infections and the metabolism of the germs causing them.

Dr. F. A. Carone, assistant professor of pathology, for studies of how the kidneys handle calcium and other chemicals in the body.

Dr. W. B. Wartman, professor and chairman of pathology, for studies of the metabolism of heart muscle when it is starved for oxygen.

Dr. David P. Earle, professor of medicine, to investigate techniques for studying heart diseases and high blood pressure.

The National Science Foundation has awarded a two-year $20,000 research grant to Dr. John Emerson Kempf of the department of microbiology at the University of Illinois Medical Center campus.

Appointments

Dr. Richard A. Carleton has been named associate director of the section of cardio-respiratory diseases at Presbyterian-St. Luke's Hospital. He has also been appointed an assistant professor at the University of Illinois College of Medicine.

Dr. Lowell T. Coggeshall, vice-president of the University of Chicago and a leading medical scientist and educator has been named chairman of the prescription drug industry's Commission on Drug Safety. The purpose of the commission is to study the problem of making available to the public therapeutic advances while maintaining adequate safeguards for both the doctor and the patient.

Dr. Irving Siegel, associate professor of obstetrics and gynecology at the Chicago Medical School, has been appointed Director of Medical Education of Edgewater Hospital. He will be in charge of the overall program and teach in his specialty.

New Medical Radio Series

A new 30 minute medical radio series, featuring members of the University of Illinois Medical Center campus staff is currently being aired on WLS. Dr. William C. Dolowy, veter-

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inarian and administrator of the University's Medical Research Laboratory is host for the series. The final two broadcasts, both heard at 11:30 a.m., include "Heart Surgery" September 16, and a discussion of the University's Medical Center Campus September 23.

Student Honored

Lewis B. Newberg, who recently completed his second year at Chicago Medical School, has been awarded a $600 Student Scholarship for research and clinical training in the field of allergic diseases by the Allergy Foundation of America.

Elections

Dr. Paul V. Harper of Chicago has been elected to a 3 year term as a member of the Board of Trustees of the Society of Nuclear Medicine.

Dr. Charles K. Petter, chairman of ISMS's Tuberculosis Committee, was recently named president-elect of the American College of Chest Physicians.

European Premiere for Film

"The Management of Hemolytic Disease of the Newborn," a color film produced by Drs. Josephine Earlywine and Herbert F. Philipsborn, Jr., will have its premiere at the International Congress of Pediatrics in Lisbon, Portugal, this month.

After its Lisbon showing, the film will go to England where it will be presented at St. Mary's Hospital Medical School in London.

Produced by the Division of Pediatrics at Evanston Hospital and the Department of Pediatrics, Northwestern University School of Medicine, the film will be available to county medical societies and hospital staff through the Committee on Child Health, ISMS.

Unique Book by Illinois Doctor

Dr. David I. Abramson, head of the department of physical medicine and rehabilitation, University of Illinois College of Medicine, Chicago, is the editor of a unique new book on vascular and lymphatic responses. Fifty-nine leading researchers from Sweden, Canada,



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IN ORAL THERAPY
OF DIABETES

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Northern Ireland, Paraguay and the United States have contributed to the text, entitled *Blood Vessels and Lymphatics.*

Madison County

"Open Heart Surgery" was the subject of Dr. Thomas Burford's address to the September meeting of the Madison County Medical Society. The meeting was held in conjunction with the Kiwanis Clubs of Madison County.

St. Clair County

Dr. Grover Cleveland Otrich, long-time councilor of the 10th District and a member of the 50 Year Club Committee, was married recently to Mrs. Louis Herman Pfeiffer.

Winnebago County

Medical Seminar Slated

The Annual Medical Seminar of the Winnebago County Society will be held September 26. Speakers include Dr. Edward B. Foley, professor of medicine at the University of Illinois College of Medicine, Dr. Clarke H. Millikan of the Mayo Clinic and Dr. Frank C. Spencer, professor of surgery at the University of Kentucky School of Medicine.

Society Commends College Stand

A Board of Directors meeting of the Winnebago County Medical Society has officially applauded the actions of Rockford College, which has refused federal assistance in their campus relocation program. The Society's resolution stated in part: "Rockford College, in refusing federal aid to education in their college relocation program has taken a heroic stand against encroachment by strong government with its implied socialistic trends." The Members of the Society were urged to aid the college in its program.

General

Six general hospital projects have been ap-

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long term response . . . "Secondary failure is unlikely to occur" with phenformin[4] (DBI-TD capsules, DBI tablets). Phenformin has been successfully administered daily in diabetics in one study for over 3 years[2] and in another for up to 4½ years[1] with "a virtual absence of acquired resistance or true secondary failure."[1] Indeed, DBI has produced a satisfactory response in 55 to 60% of tolbutamide secondary failures.[3,7]

long term clinical safety . . . No liver or parenchymal organ toxicity has been observed after up to 2½ years of daily use of DBI-TD — nearly 5 years with the DBI tablets.[1,2,9] "The absence of hypoglycemic reactions" with phenformin "has been conspicuous."[5]

long term tolerance . . . DBI-TD is well tolerated with minimal g.i. side effects.[2,6,8] Radding et al.[6] report, "the relative freedom from gastrointestinal side effects was particularly reassuring . . . and in no instance was it necessary to discontinue the drug."

long term convenience . . . Once a day dosage — or at most twice a day — for great majority of diabetics makes DBI-TD simple and convenient therapy. Each dose lowers blood sugar gradually, smoothly, for about 12 to 14 hours.[6]

DBI-TD (brand of Phenformin HCl — N¹-β-phenethylbiguanide HCl) available as 50 mg. timed-disintegration capsules; bottles of 100 and 1000 capsules. Also available as DBI tablets, 25 mg., bottles of 100 and 1000.

Important: Before prescribing DBI-TD, the physician should be thoroughly familiar with directions for use, including indications, dosage, possible side effects, precautions and contraindications. Write for complete literature.

1. Pomeranze, J.: Clinical Med. 8:1155, June 1961. 2. Krall, L. P. and Bradley, R. F.: Geriatrics 17:337, May 1962. 3. DeLawter, D. E. et al.: J.A.M.A. 171:1786, Nov. 28, 1959. 4. Perkin, F. S.: J.A.M.A. 173:36, May 7, 1960. 5. Pearlman, W.: Phenformin Symposium, Houston, Feb. 1959. 6. Radding, R. S. et al.: Metabolism 11:404, April 1962. 7. Gold, A. et al.: Applied Therapeutics 2:137, 1960. 8. Brown, G. D. and Gabert, H.: Applied Therapeutics 4:451, May 1962. 9. Gold, A.: Applied Therapeutics 4:466, May 1962.

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proved by the Illinois Advisory Hospital Council. Construction funds will be made available from a federal grant-in-aid program and state funds. The hospitals are Alexian Brothers, Elk Grove; Pinckneyville Community, Pinckneyville; Ingalls Memorial, Harvey; St. James, Chicago Heights; Central DuPage Community, Winfield-Wheaton; and Sherman, Elgin.

Dr. Franklin D. Yoder, director of the Illinois Department of Public Health, has announced the reappointment to the Radiation Protection Advisory Council of Dr. Roger A. Harvey, professor and head of the Department of Radiology, of the College of Medicine of the University of Illinois.

All hospital administrators and children's institution superintendents are being warned of the danger of cyanosis to premature and newborn infants from the new chemical TCC. The chemical which is used in autoclaving diapers has been cited as a probable cause of cyanosis cases throughout the country.

ANNOUNCEMENTS

New Scholarships Offered

A new medical scholarship program which will provide each school of medicine in the United States with a one thousand dollar scholarship beginning with the 1962-63 school year has been established by Pfizer Laboratories. The scholarships will be administered by the dean of each medical school.

Crippled Children's Clinics

October 2 Carrollton, First Baptist Church
October 2 Quincy, Blessing Hospital
October 3 Alton (Rheumatic Fever), Alton Memorial Hospital
October 3 Hinsdale, Hinsdale Sanitarium
October 3 Rock Island (Cerebral Palsy), Foss Home, 3808 8th Avenue
October 4 Flora, Clay County Hospital
October 5 Chicago Heights (Cardiac), St. James Hospital
October 9 East St. Louis, St. Mary's Hospital
October 9 Peoria (General), Children's Hospital
October 10 Champaign-Urbana, McKinley Hospital
October 11 Cairo, Public Health Building
October 11 Springfield (General), St. John's Hospital
October 12 Evanston, St. Francis Hospital
October 16 Belleville, St. Elizabeth's Hospital
October 17 Chicago Heights (General), St. James Hospital
October 18 Elmhurst (Cardiac), Memorial Hospital of DuPage County
October 18 Rockford, St. Anthony's Hospital
October 19 Chicago Heights (Cardiac), St. James Hospital
October 23 Effingham (Rheumatic Fever), St. Anthony Memorial Hospital
October 23 Peoria (General), Children's Hospital
October 24 Aurora, Copley Memorial Hospital
October 24 Springfield (Cerebral Palsy—p.m.), Memorial Hospital
October 25 Bloomington (General—a.m.), St. Joseph's Hospital
October 25 Mt. Vernon, Masonic Temple

PG Courses

Two new courses will be featured in Northwestern University Medical School's department of prosthetic-orthotic education this fall. The management of the juvenile amputee will be studied in a two-section course. A pilot course in spinal orthotics will be open to experienced orthotists, during the first semester.

Clinical Pathology in Medical Practice will be the subject of an October 23-25 course at the Medical College of Georgia. Dr. William J. Cromartie, professor at the University of North Carolina and Dr. Paul Heller, director of research at the VA Hospital in Chicago will be the guest faculty.

The New York University Medical Center will offer a four-day course on Surgical Rehabilitation of Arthritic Deformities November 13-16. Atherosclerosis and Hypertension will be the topic of the course offered from November



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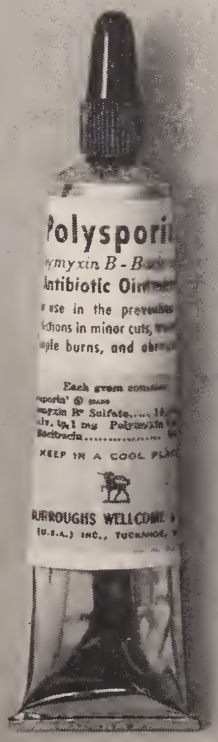
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8-10. Further information may be obtained by writing the Office of the Associate Dean, New York University Post-Graduate Medical School, 550 First Avenue, New York 16, New York.

A postgraduate conference on Radiology will be held at the University of Iowa on October 13. Among subjects to be discussed will be "Carcinoma of the Thyroid and Iodine 131 Levels in Milk" and "Recent Experiences with Pre-Operative Irradiation of Lung Neoplasms." Physicians who would like to receive programs and registration materials should write to John A. Gius, M.D., Director, Postgraduate Medical Studies, Office of the Dean, College of Medicine, Iowa City, Iowa.

Dr. Janet Travell, personal physician to the President, will be one of three guest faculty members for a postgraduate conference on "Arthritis and Related Disorders," which will be held October 5-6 at the University of Iowa College of Medicine, Iowa City. Dr. Travell will discuss "Management of Referred Skeletal Pain." Other guest faculty members will be Dr. L. Maxwell Lockie, professor of therapeutics, University of Buffalo, and Dr. Max M. Montgomery, associate professor of medicine, University of Illinois.

Meetings

"The Causes and Treatment of Surgical Complications" is the topic of the panel symposium of the Metropolitan Chicago Chapter of the American College of Surgeons, September 20 at the John B. Murphy Memorial Auditorium, 50 East Erie Street, Chicago. The panel will be moderated by Dr. Stanley Hoerr, professor and chairman of the department of surgery, Cleveland Clinic Foundation Hospital. The members of the panel are Dr. Vincent J. Collins, Dr. Ormand C. Julian and Dr. Robert J. Freeark all of Chicago.

The Illinois State Society of X-ray Technicians will hold their annual convention in Springfield, October 19-20. Exhibits and refresher courses will be implemented by papers presented by student and registered technicians.

The Chicago Chapter, American Medical Writers' Association, will hold its next meeting September 24. At this meeting Dr. Phebe K. Thompson, M.D., editor of the Journal of the American Geriatrics Society, will head a panel discussion on a subject of practical interest to medical authors, such as grammatical errors frequently found in medical manuscripts. Those interested in joining the Chicago Chapter of AMWA should contact: R. J. Main, Ph.D., Secretary-Treasurer AMWA, at the American Medical Association, 535 North Dearborn, Chicago 10, Illinois.

Dr. William C. Menninger of the Menninger Foundation will be one of the featured speakers at the annual meeting of the Illinois Association for Mental Health in Springfield, October 19-20.

A symposium on Birth Defects will be sponsored by the National Foundation and Vanderbilt University School of Medicine in Nashville, Tenn., Sept. 27-28. The symposium will be held in conjunction with the formal dedication of a unique round-wing addition to Vanderbilt University Hospital.

The North Central Section of the College of American Pathologists will hold a joint meeting with the Wisconsin Society of Pathologists October 26-27 at the Marquette University School of Medicine in Milwaukee. The two-day session will consist of a scientific program followed by a session on Soft Tissue Tumors.

Reiter's Syndrome Study

The cooperation of physicians is earnestly solicited in the referral of patients for a study of Reiter's syndrome conducted by the National Institute of Arthritis and Metabolic Disease in the Clinical Center of the National Institutes of Health, Bethesda, Maryland. Renewed efforts are being made to recover and identify the causative agent of Reiter's syndrome.

Reiter's syndrome is characterized by a triad of arthritis, urethritis and conjunctivitis.

Physicians who wish to have patients considered for this study should contact: Joseph J. Bunim, M.D., Clinical Director, National Institute of Arthritis and Metabolic Diseases, Bethesda 14, Maryland.

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Deaths

Frank R. Dereng*, Chicago, a graduate of Loyola University School of Medicine in 1921, died July 8, aged 73. A member of the staff of Little Company of Mary Hospital, he was a member of the International College of Surgeons.

Mannie Martin **Dillard**, retired, Chicago, a graduate of Meharry Medical College, Nashville, Tennessee in 1918, aged 70. In 1953 he retired from Provident Hospital as the senior attending anesthesiologist.

Joseph J. Kagann*, Chicago, a graduate of Loyola University School of Medicine in 1922, died July 9, aged 73. A member of the American Academy of General Practice, he served as a medical examiner for Selective Service in World War II.

J. Henry Kramer*, retired, California, a graduate of Chicago College of Medicine and Surgery in 1912, died February 27, aged 82. He had a private practice in Chicago and was a senior health officer, Chicago Health Department, until his retirement in 1945. At the time of his death, he was assisting in the development of California Lutheran College at Thousand Oaks, California as an important donor and convocator of the college.

Ruth R. Lighthall, retired, Tonopah, Nev., died July 29, aged 91. She practiced in Elmhurst and LaGrange before her retirement in 1944.

Ronald J. Lindsay, Chicago, a graduate of Loyola University Medical School of Medicine in 1932, aged 56. He served on the staff of St. Anne's Hospital.

Louis A. Loewenberg*, Chicago, a graduate of Chicago College of Medicine and Surgery in 1912, died August 2, aged 76. He was a member of the 50 Year Club and an emeritus member of ISMS.

Robert B. Millar, Durant, Okla., died July 11, aged 66. He was a native of Chicago and practiced in Cook County for 20 years.

George Lawton Ostroskey*, Chicago, a graduate of Chicago Medical School in 1918, died July 22, aged 71. An emeritus member of ISMS, he was a staff surgeon at Norwegian American Hospital.

Kamil Schulhof*, Berwyn, a graduate of the Universita Karlova Fakulta Lekarska, Praha, Czechoslovakia in 1913, died July 28, aged 74.

Raymond E. Sheridan*, Chicago, a graduate of Loyola University School of Medicine in 1922, died July 13, aged 64.

John Colville Smith*, Cicero, a graduate of Northwestern University Medical School in 1926, died July 26, aged 65. He was named "outstanding general practitioner of 1960" by the ISMS. He was cited for "longtime service to the public, his contributions to the betterment of medical care and his devotion to community welfare." He was past president of the Illinois Academy of General Practice, a councilor of the Chicago Medical Society, and twice staff president of MacNeal Memorial Hospital in Berwyn. He was also past president of the Cicero Kiwanis Club and a prominent worker in Community Chest Drives.

Philo Francis Snyder*, Chicago, a graduate of Chicago College of Medicine and Surgery, died July 31, aged 78. He was former chief of staff of Norwegian American Hospital and a former professor of surgery at Loyola University. A member of the 50 Year Club, his memberships also included the International College of Surgeons.

John J. Sprafka*, retired, Chicago, a graduate of Rush Medical College in 1911, died August 1, aged 74. He was an emeritus member of ISMS and a member of the 50 Year Club of the society. He was a fellow of both the American and International College of Surgeons.

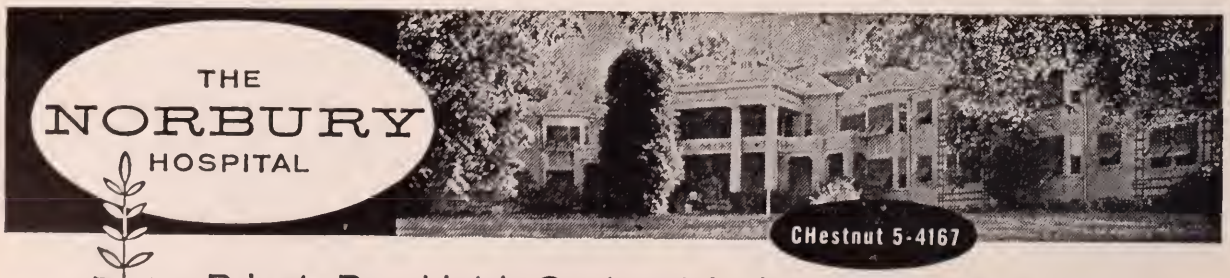
Morris S. Springel*, retired, Los Angeles, died July 11, aged 70. He had lived in Los Angeles for the last five years, but had practiced in Chicago for over 28 years before his retirement six years ago.

Milton Sternberg*, Chicago a graduate of the University of Illinois College of Medicine, died July 25, aged 52. He was certified in ophthalmology and a member of the staff of South Shore Hospital.

E. Field Worsley*, Downers Grove, a graduate of Loyola University School of Medicine in 1918, died July 21, aged 74.

Orson Russell Zunkel, Buckley, a graduate of Chicago Medical School in 1936, died August 1, aged 54.

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Gynecology, Office & Operative, Two Weeks, November 5
Obstetrics, General & Surgical, Two Weeks, October 8
Urology, Two Weeks, October 29
Proctoscopy & Sigmoidoscopy, One Week, October 29
General Practice Review, One Week, October 8
Gallbladder Surgery, 3 Days, October 8
Surgery of Hernia, 3 Days, October 11
Basic Electrocardiography, One Week, October 1
Advances in Medicine, One Week, October 15
Advances in Surgery, One Week, December 10
Blood Vessel Surgery, One Week, October 22
Board of Surgery Review, Part I, Two Weeks, November 5
Board of Surgery Review, Part II, Two Weeks, November 26
Clinical Uses of Radioisotopes, Two Weeks, October 1
Treatment of Varicose Veins, One Week, October 29

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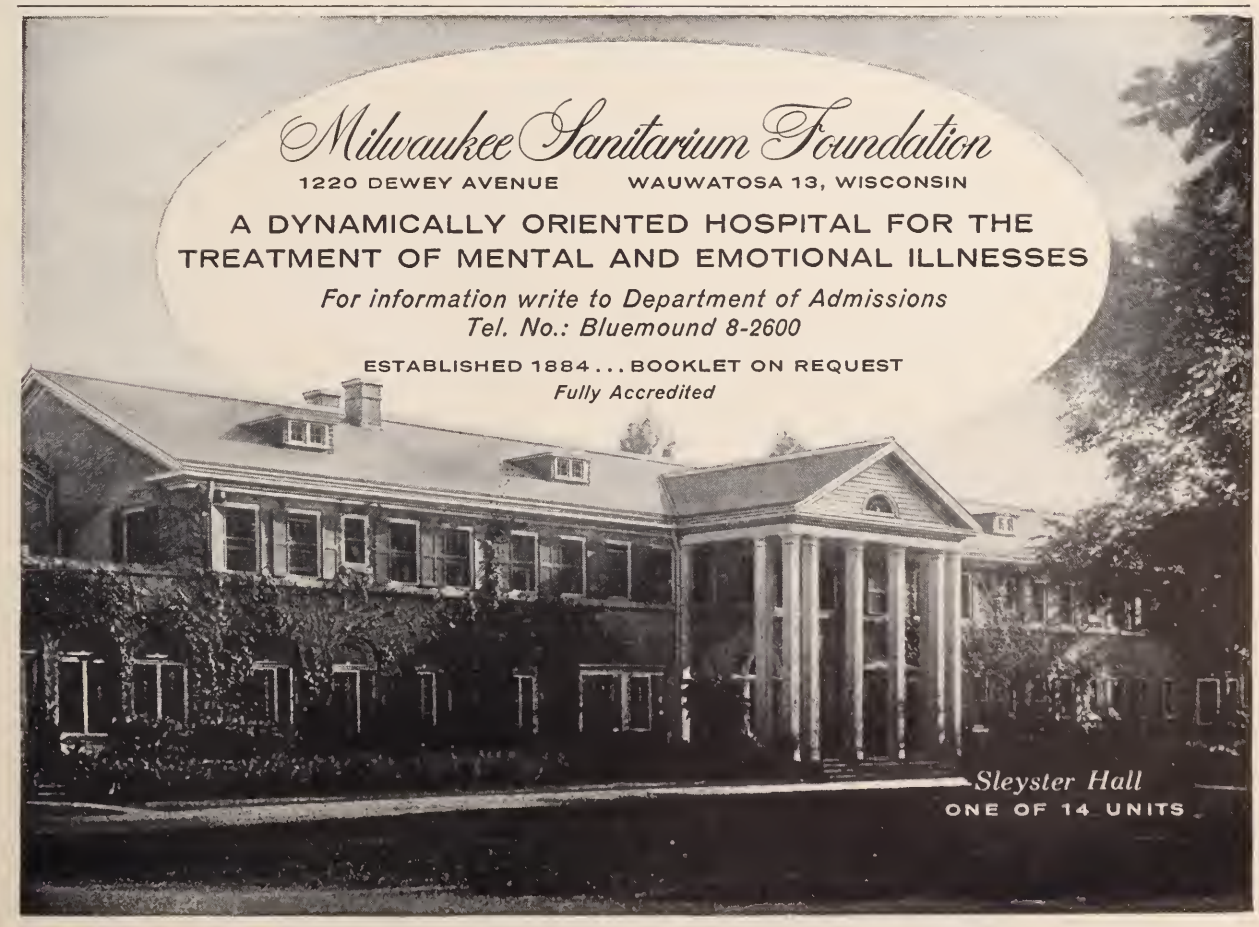
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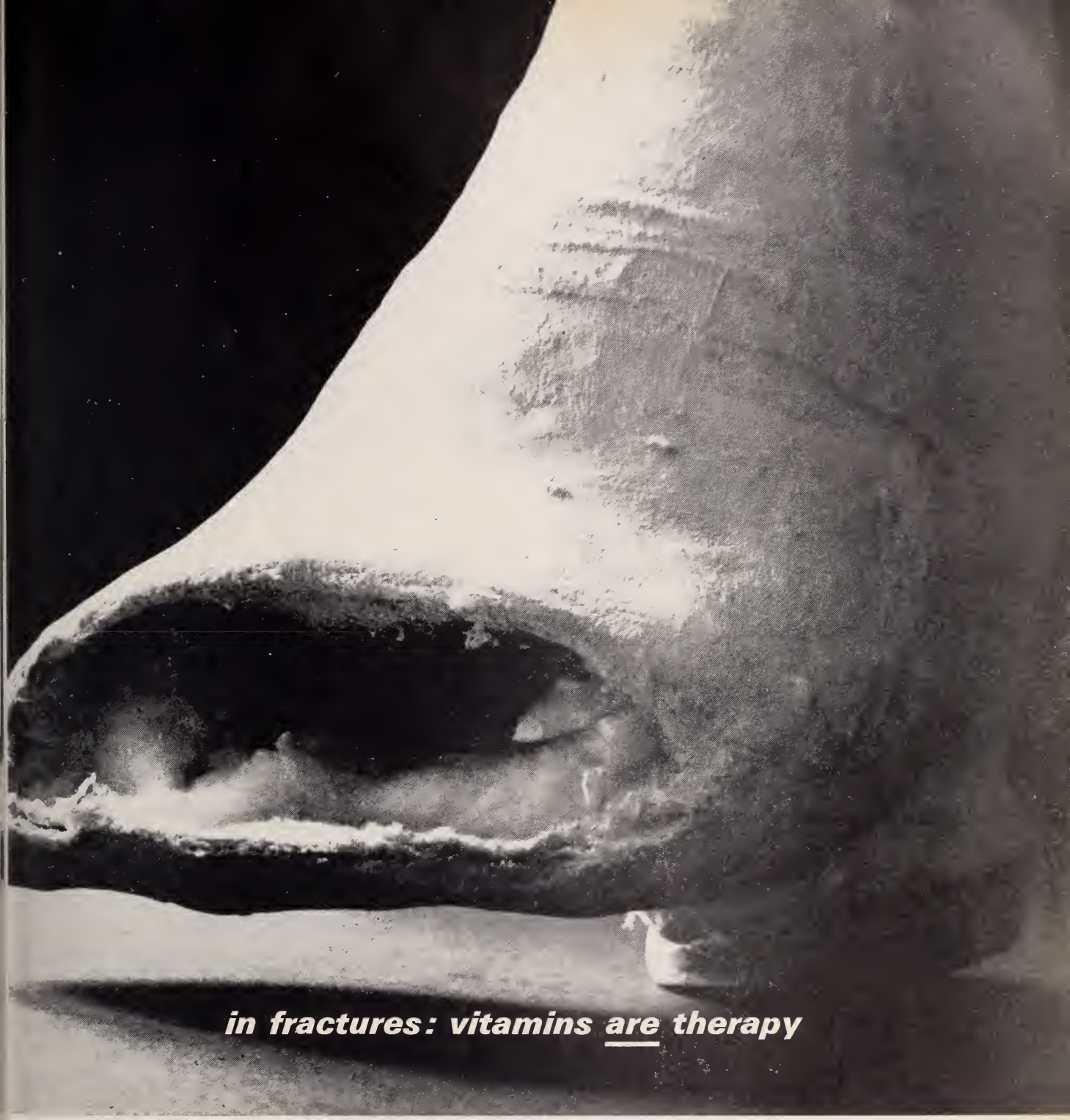
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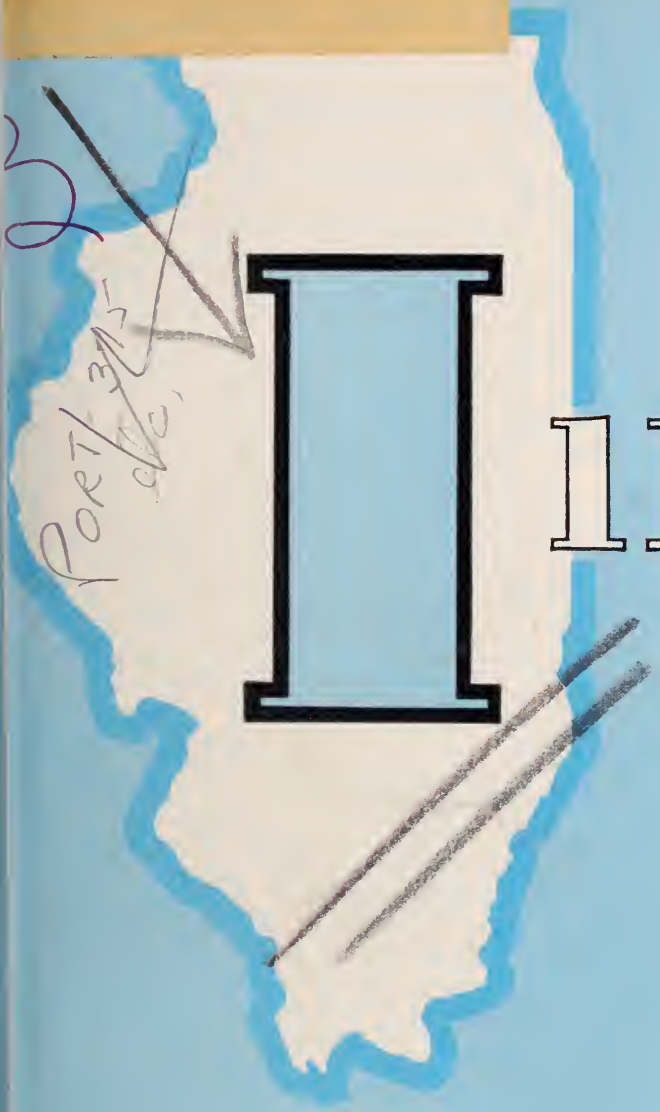
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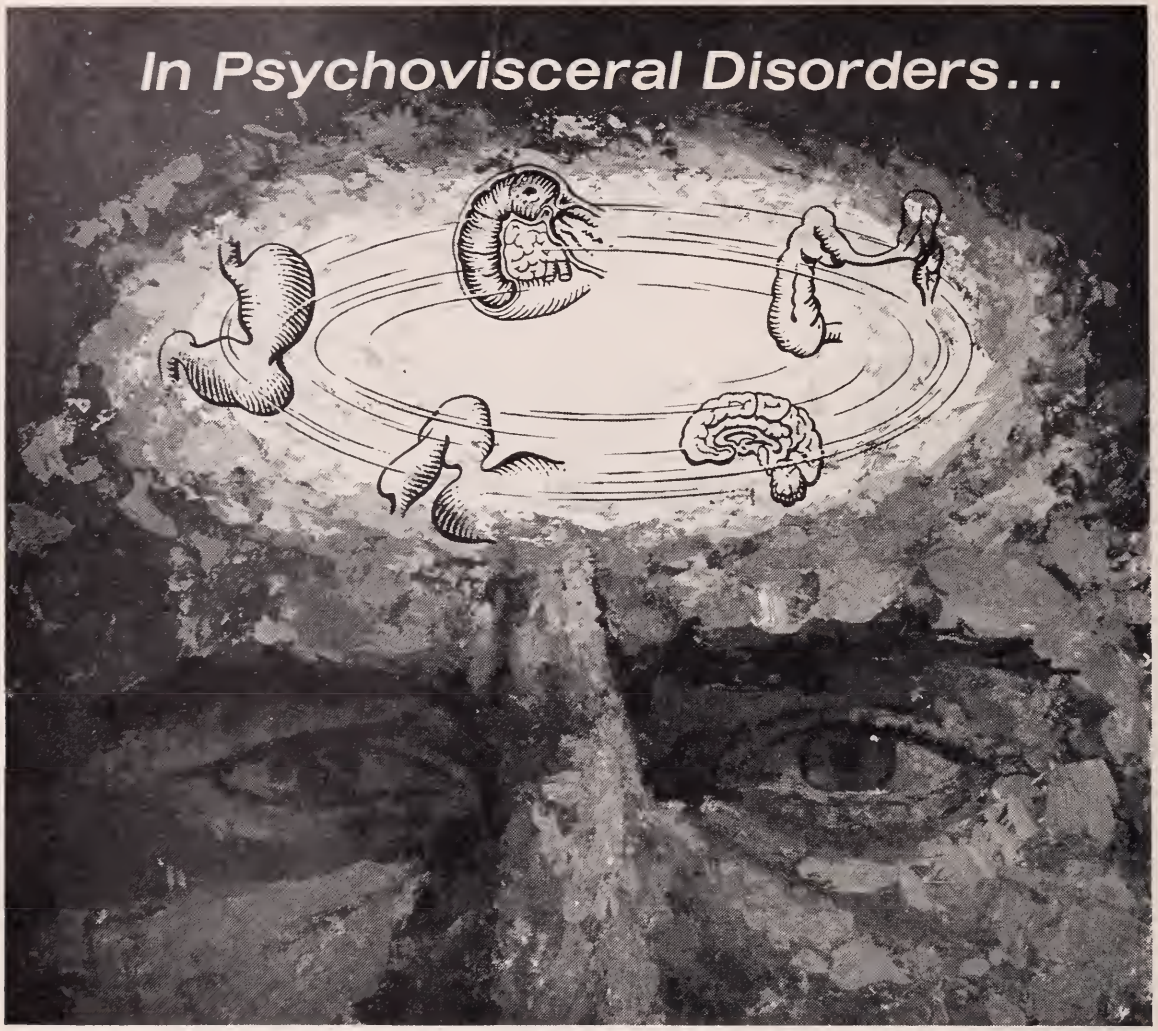
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Abstracts of Board of Trustees Actions

Meeting of September 15, 1962

▸ POLICY STATEMENT ON SABIN VACCINE APPROVED BY BOARD

On review of recommendations by the Poliomyelitis Technical Advisory Committee, the U. S. Public Health Service, the Association of State and Territorial Health Officers, and the Illinois State Medical Society Board of Trustees, the Illinois Department of Public Health set forth the following policies on the use of oral Sabin poliomyelitis vaccine in community-wide programs, which have been forwarded to all county medical societies:

"In order to eradicate poliomyelitis it is agreed that community immunization programs using attenuated live virus vaccine are desirable and will have to be followed up by private physicians and local health departments to immunize the new susceptibles. Programs that have been planned to start this fall using oral Sabin (attenuated 'live' virus) vaccine should proceed as scheduled with the first two doses, giving Type I as the first dose and Type II as the second dose. Communities should be urged to participate in such programs. The Department's Polio Technical Advisory Committee is fully aware of the cooperative efforts and willingness of physicians to sponsor community immunization programs. We encourage them to continue to make plans for the winter months and the spring of 1963."

The above statement is in keeping with the policy statement issued by the Illinois Department of Public Health last April with the exception that Type II be given as the second dose rather than Type III. Reason for the change is that epidemiologic evidence seems to indicate that a few cases of paralytic polio may have been caused by Type III vaccine. By delaying administration of Type III vaccine it is hoped that whatever hazards may be present in Type III will be corrected before the third dose is due. The Illinois Department of Public Health will transmit to all physicians and public health officials current data and experiences as rapidly as such information is acquired or made available.

In addition to the above statement, each county society was sent a postal card questionnaire requesting a status report on its community-wide poliomyelitis immunization program.

▸ FINAL REPORT ON THALIDOMIDE INVESTIGATION

Dr. Willard Scrivner, Chairman of Maternal Welfare Committee, reported that none of the 50 physicians in the Chicago area receiving thalidomide prescribed it for women in the child-bearing period. Of 29 physicians in possession of thalidomide in downstate Illinois and replying to the Maternal Welfare Committee questionnaire, none prescribed the drug in the first trimester of pregnancy. One downstate physician prescribed thalidomide for 14 women during the third trimester of pregnancy; all 14 gave birth to normal infants. One woman who took thalidomide during the first trimester of pregnancy gave birth to a phocomelic infant; however, it was discovered that she received the drug from Germany through her own efforts. In Evanston, one woman gave birth to a phocomelic infant but had not received any thalidomide at any time during her pregnancy. It has not as yet been ascertained whether a woman in the Rock Island area who gave birth to a phocomelic infant last June took thalidomide while pregnant.

▸ MEETING SCHEDULED BETWEEN ISMS AND BLUE CROSS REPRESENTATIVES

A meeting to discuss the proposed Blue Cross offering in conjunction with the "Senior Citizen" Over 65 Blue Shield Plan has been scheduled be-

tween the Chicago Blue Cross Plan Board of Directors and the ISMS Committee on Prepayment Plans and Organizations.

This action reflects a concern for the effectiveness of the combined plans to help the aged in low income groups achieve the desired objective of prepaying a substantial portion of their medical and hospital costs. Of specific concern is the use of a Blue Cross rider on the present Series 65 Blue Cross Plan to match the expanded Blue Shield benefits.

▸ PRESIDENT'S REPORT

Dr. George F. Lull, reporting on his trip to Washington to review the Medicare Contract with the office of the U. S. Surgeon General, stated that requests relative to consultation and injectables were accepted. In all, 36 items were recommended for increase and a few for decrease. ISMS officers were requested to sign a contract effective for 60 days, during which time the 35-40 individual requests could be further considered.

▸ SECRETARIES' CONFERENCE SCHEDULED FOR OCTOBER 14 IN SPRINGFIELD

Among the important topics to be covered at this conference are 1) medical society relationships with paramedical groups; 2) the Aesculapian Society program of Will-Grundy county; 3) the financial structure of county medical societies; and 4) IPAC and Kerr-Mills implementation. A round table discussion is to be held at the conclusion of the Conference.

▸ PROPOSALS FOR INCREASED FIELD WORK WITH COUNTY SOCIETIES APPROVED

As a result of suggestions from some county societies that more field services be offered by ISMS to keep them better informed, letters will be sent to each county society within the next few weeks offering three methods of contact with ISMS: 1) a visit by one of the ISMS staff with the county society delegate and/or alternate delegate; 2) attendance by an ISMS officer and/or staff member at a county society meeting to answer questions on ISMS policies and activities; and 3) one meeting of the county society programmed by ISMS officers and staff members and devoted to discussion. Any or all of these services will be offered voluntarily and can be accepted or rejected at the discretion of the county society.

▸ IMT PANEL NOT TO PARTICIPATE IN MALPRACTICE ACTION

This decision was based on the fact that IMT considers only the extent of injury, whereas malpractice considers whether or not the physician-defendant has abided by the minimum legal standard for acceptable legal care in a given area. It was decided that the standard of legally acceptable medical care varies in different communities and is not identifiable with the highest possible standard of medical care to which an IMT panelist is committed; hence it would be a gross injustice to ask an IMT panelist to testify as to the prevailing standards of ordinary medical care.

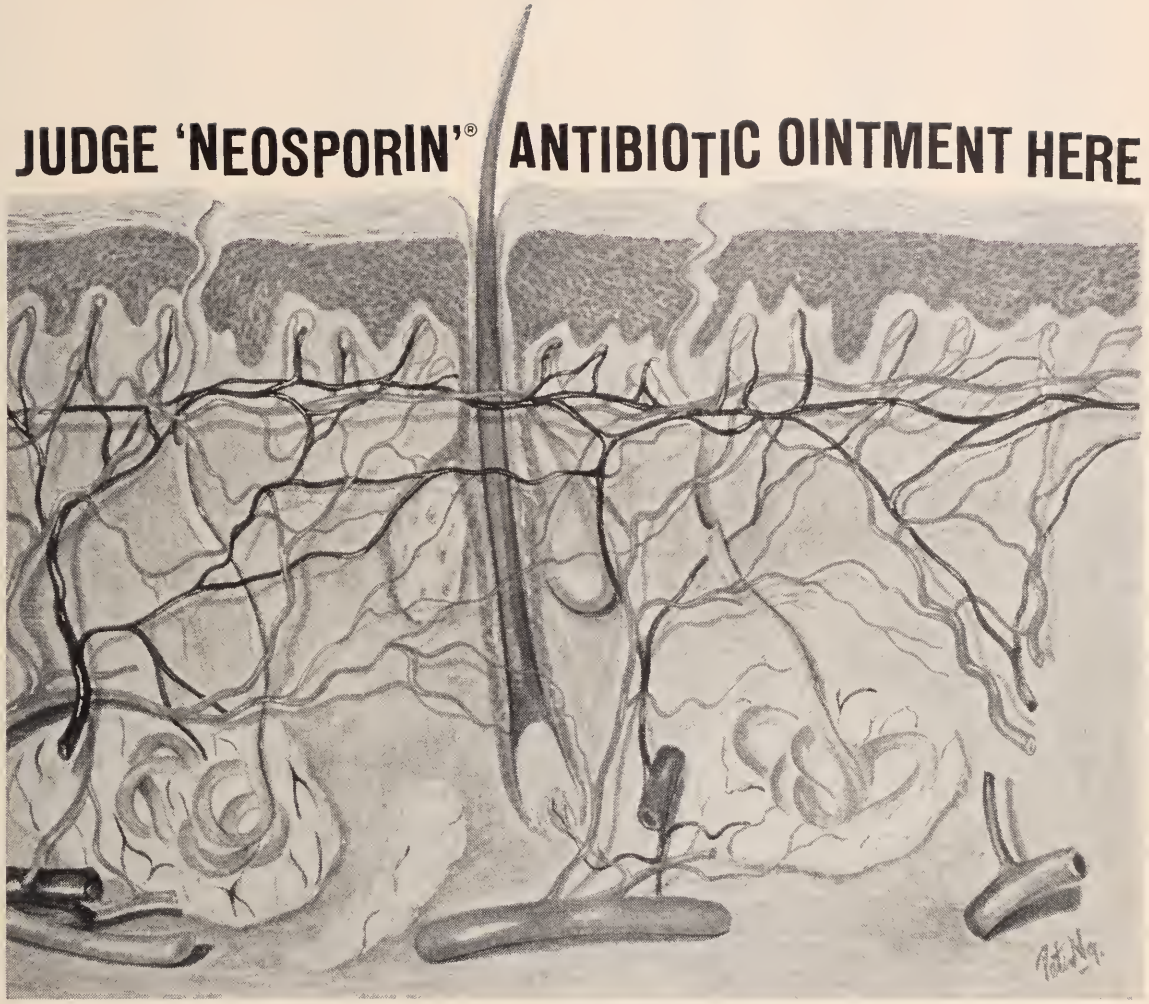
▸ FINANCE COMMITTEE REPORT

The Benevolence Fund investment account ($140,000) remains invested 100% in government bonds. Currently, the bank is negotiating with the government to redeem $20,000 in Treasury bonds for reinvestment in common stocks. The General Fund investment account ($93,000) is negotiating for the redemption of $33,000 in Treasury bonds. During July, the General Fund completed the redemption of $30,000 of Savings bonds, the proceeds of which were reinvested in stocks recommended by the Continental Illinois National Bank.

▸ DATES FOR FUTURE ANNUAL MEETINGS ANNOUNCED

Dates for the 1963 ISMS Annual Meeting are May 12-16; for 1964, May 17-21; and for 1965, May 16-20.

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References: 1. Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: **J. Am. Pharm. A.** (Scient. Ed.) 48:380, July, 1959. **2.** Hinkel, E. T., Jr.; Fisher, M. P., and Tainter, M. L.: **J. Am. Pharm. A.** (Scient. Ed.) 48:384, July, 1959. **3.** Schwartz, I. R.: **Current Therap. Res.** 3:29, Feb., 1961.

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Volume 122, No. 4 October, 1962

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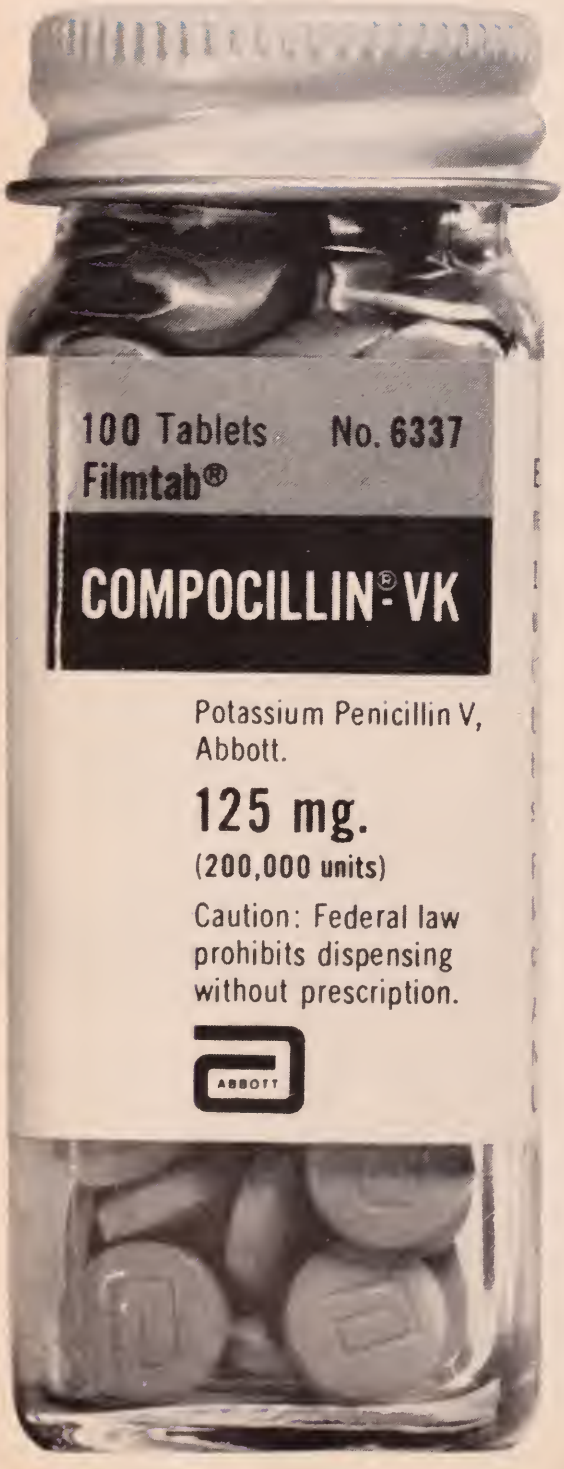
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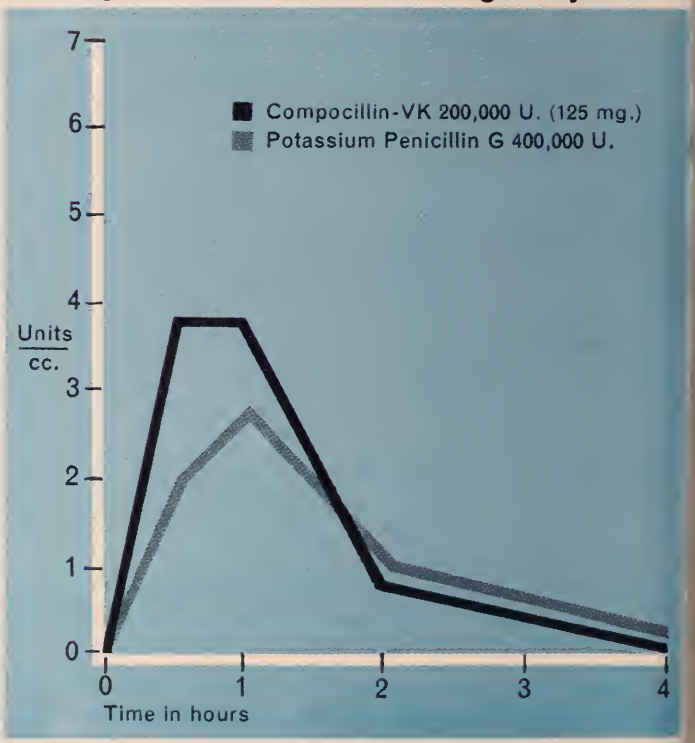
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Single Oral Doses to Fasting Subjects*



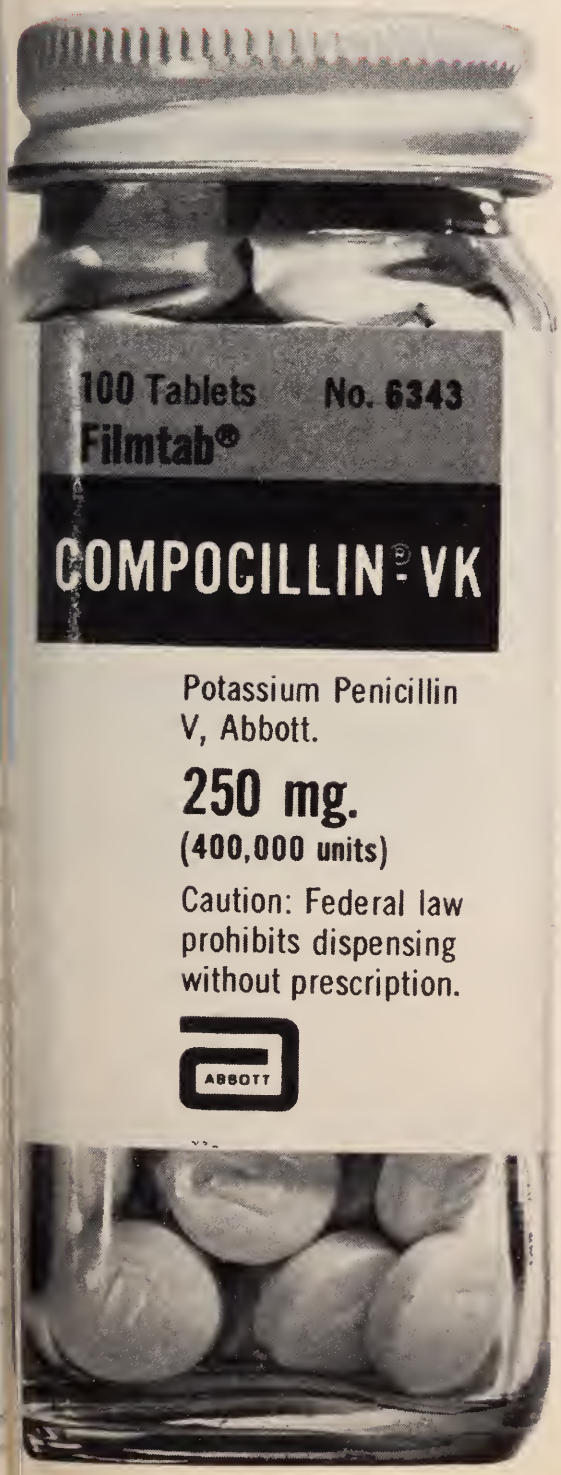
Consider milder bacterial infections

An example might be a respiratory infection. Here economy could be a definite factor in your thinking. In the chart above, you'll see that 200,000 units (125 mg.) of Compocillin VK produces blood levels at least equal to those obtained with 400,000 units of oral penicillin G potassium. This means that in less severe infections, Compocillin-VK may be given at *half* the dosage needed with oral penicillin G—with no sacrifice in blood levels. In these cases, the cost of Compocillin-VK therapy will be no more—and often will be less—than treatment with oral penicillin G.

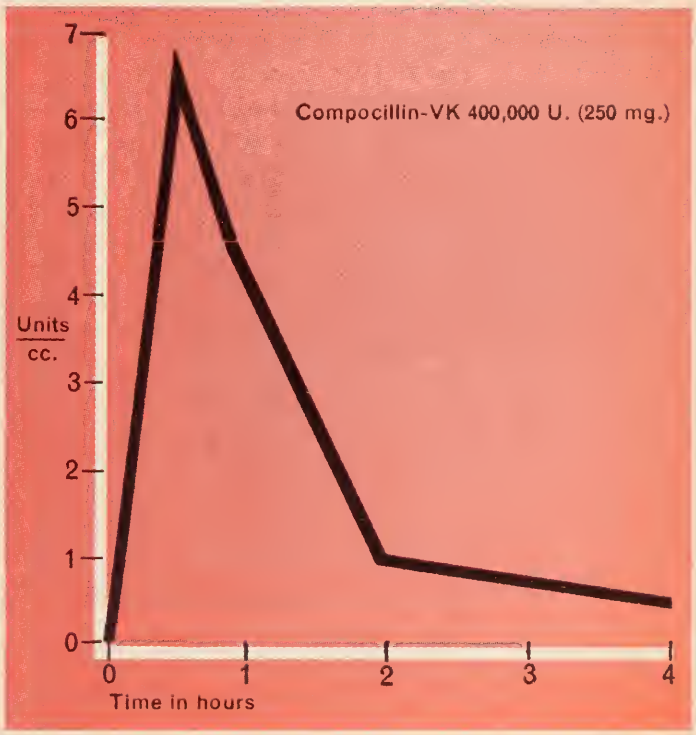
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*Chart data from two separate studies completed by the Microbiologic and Medical Departments of Abbott Laboratories.

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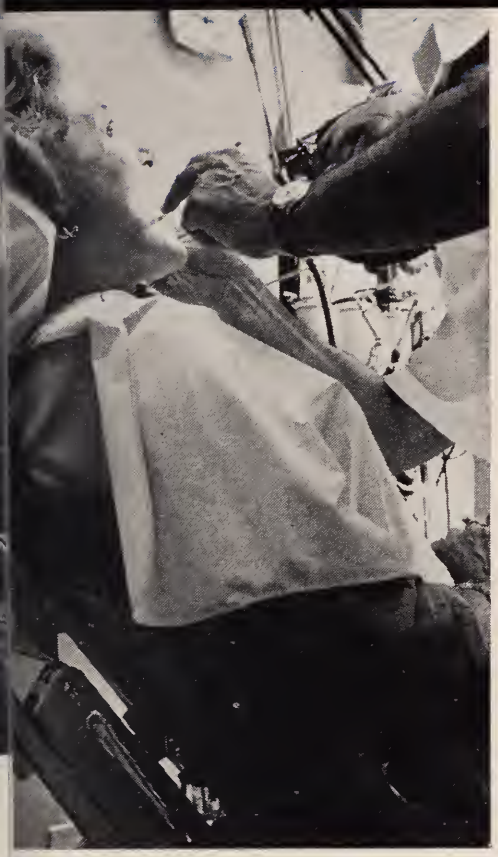
Mrs. S. has no need for increased Orinase in the course of her extensive social activities. For instance, she can and often does arrange for impromptu entertainment at her home without requiring additional dosage.

The patient is frequentl… to travel in connection … social, philanthropic, a… responsibilities. She ne… no increase in Orinase … occasions, and finds he… enjoyable now that she … of the fears and difficul… accompanied insulin in…

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5 years of control







Mrs. S. did, however, need more Orinase when pyorrhea and other dental problems necessitated oral surgery, beginning late in 1959. During the five-month course of dental treatment, the patient's Orinase requirement was 3 Gm. daily. Thereafter, she was well maintained on 2 Gm.

When her daughter went to live abroad in 1961, the stress of the parting had an adverse effect, and Orinase had to be increased to 3 Gm. for 2 months. Mrs. S. then resumed her routine dosage.

Apart from temporary, stress-induced changes, Mrs. S. gets along very satisfactorily on 2 Gm. daily. With Orinase control, she has been leading an active and gregarious life for 5½ years.

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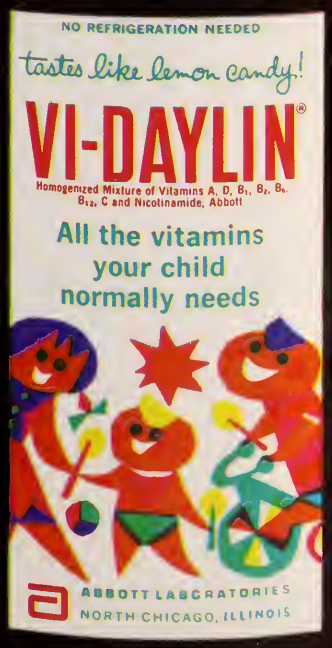
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Vitamin A	0.9 mg. (3000 units)	1	2
Vitamin D	10 mcg. (400 units)	1	1
Thiamine HCl (B_1)	1.5 mg.	2	6
Riboflavin (B_2)	1.2 mg.	1⅓	2
Ascorbic Acid (C)	50 mg.	2½	5
Nicotinamide	10 mg.	1⅓	2

Also supplies cyanocobalamin (B_{12}) 3 mcg. and pyridoxine Hydrochloride 1 mg.

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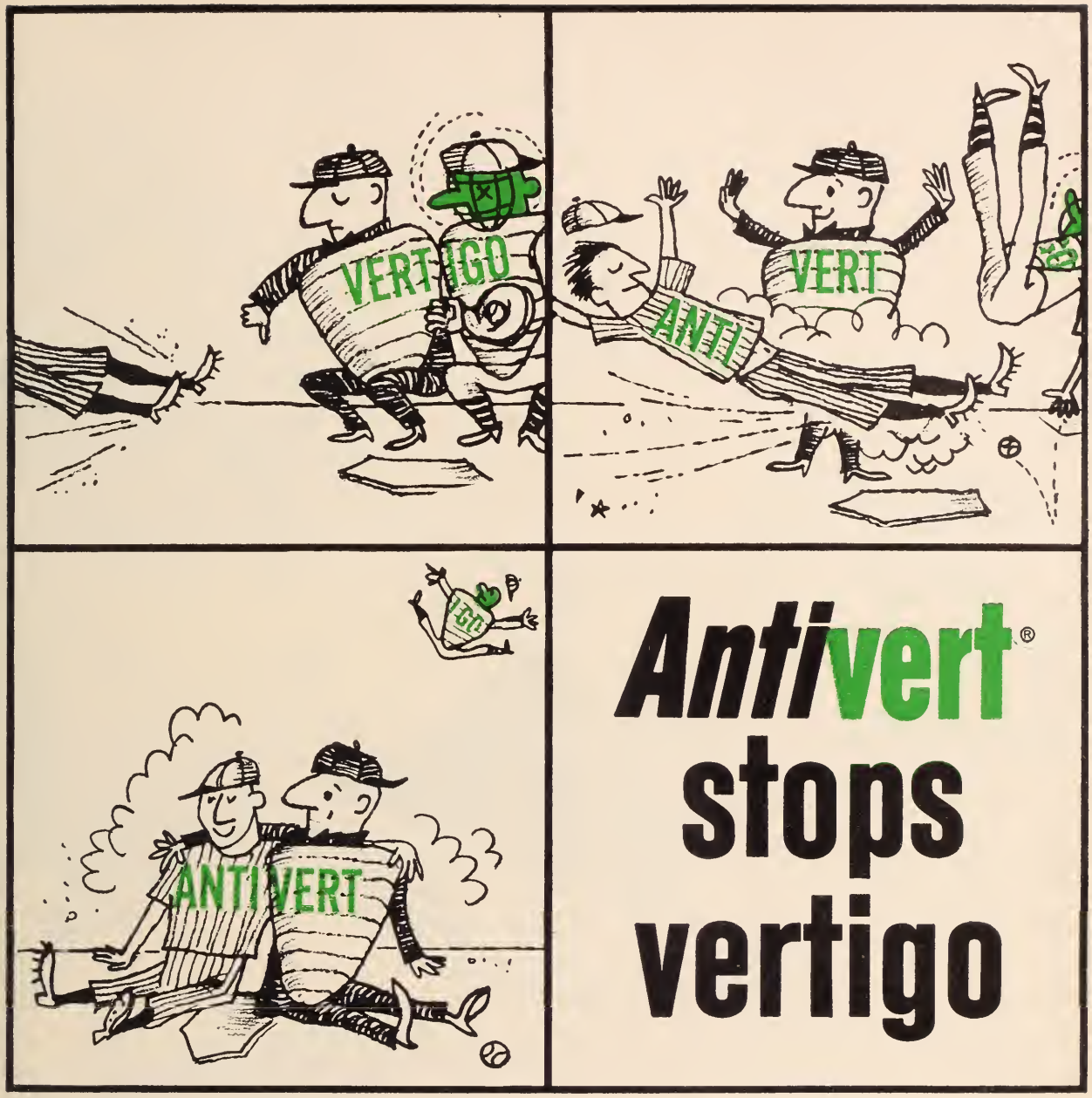
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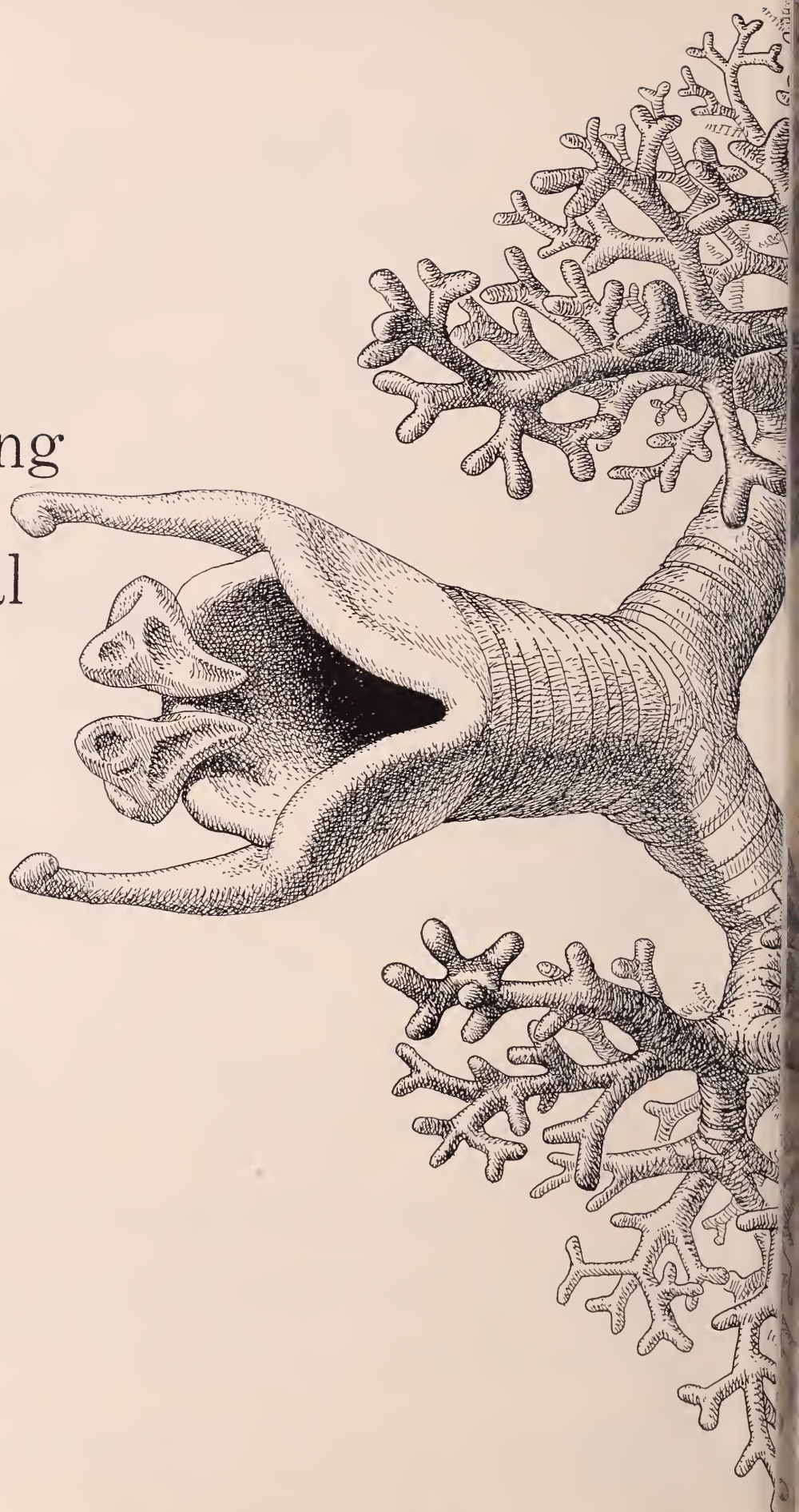
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*Scal, J. C.: Eye Ear Nose & Throat Month. **38**:738 (Sept.) 1959.

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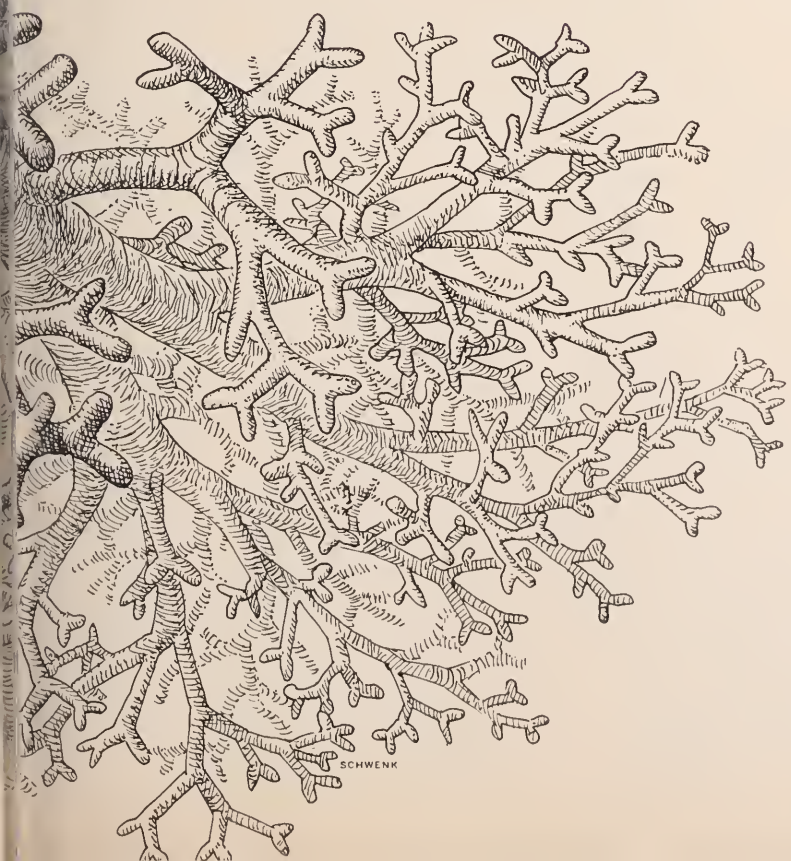




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AS I SEE IT FROM '360'

By Robert L. Richards
Executive Administrator

Recent Medical News Proves Worth of Organized Medicine

Never before has the public been so deluged with critical — and at times ominous — medical news as in the past few months. First in order was Medicare, followed quickly by the thalidomide tragedy, "contraceptive pill" alarm, and Sabin vaccine issue.

In the wake of these events, the vital responsibilities of organized medicine to 1) inform the public and the profession; 2) interpret the facts accurately; 3) seek solutions; and 4) check and correct distortions of fact, have been subjected to their most severe tests. I am happy to state that at present in Illinois these tests have been met and largely surmounted. Through the close cooperation and tireless efforts of the state society and the county societies and their appropriate committees, as well as the voluntary assistance of the Illinois State Department of Public Health and Chicago Department of Public Health, the public's image of medicine in Illinois remains essentially intact.

The recent thalidomide problem demonstrates how effectively this team effort works. Shortly after the tragedy made the headlines, the ISMS Board of Trustees set to work. At the July 29 Board Meeting, Dr. Franklin D. Yoder of the Illinois State Department of Public Health, and Dr. Samuel Andelman of the Chicago Department of Public Health, expressed their concern over the extent to which the drug had been distributed and prescribed in Illinois. They suggested taking a "long look" at the many factors involved in the overall problem. Dr. Edward Cannady, vice speaker of the ISMS House of Delegates, stressed the fact that the names of physicians in Illinois receiving thalidomide for clinical use be withheld from the lay press. During this meeting it was brought out that the drug had been distributed through proper channels and for the most part had been recalled. The important approach now was to check the overall problem of congenital deformities from all causes. As a result the Board directed the Maternal Welfare Committee of ISMS in cooperation with the Illinois State Department of Public Health to make a study and report of all birth anomalies occurring in Illinois during the past year.

Less than six weeks later the thalidomide phase of this study was completed and the results released immediately to the newspapers. It showed that no woman in Illinois taking thalidomide under a doctor's supervision gave birth to a phocomelic infant. Thus, as a result of one integrated course of action, the public's anxiety about drug-induced deformities was quelled, the names of physicians receiving thalidomide were protected, and an important study on congenital deformities in Illinois was instituted.

This is but one example of how organized medicine at the county and state levels works for the benefit of the Illinois physician. The fact that it works effectively under the most strained conditions is additional reason for its vigorous, active support by the entire ISMS membership.

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Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

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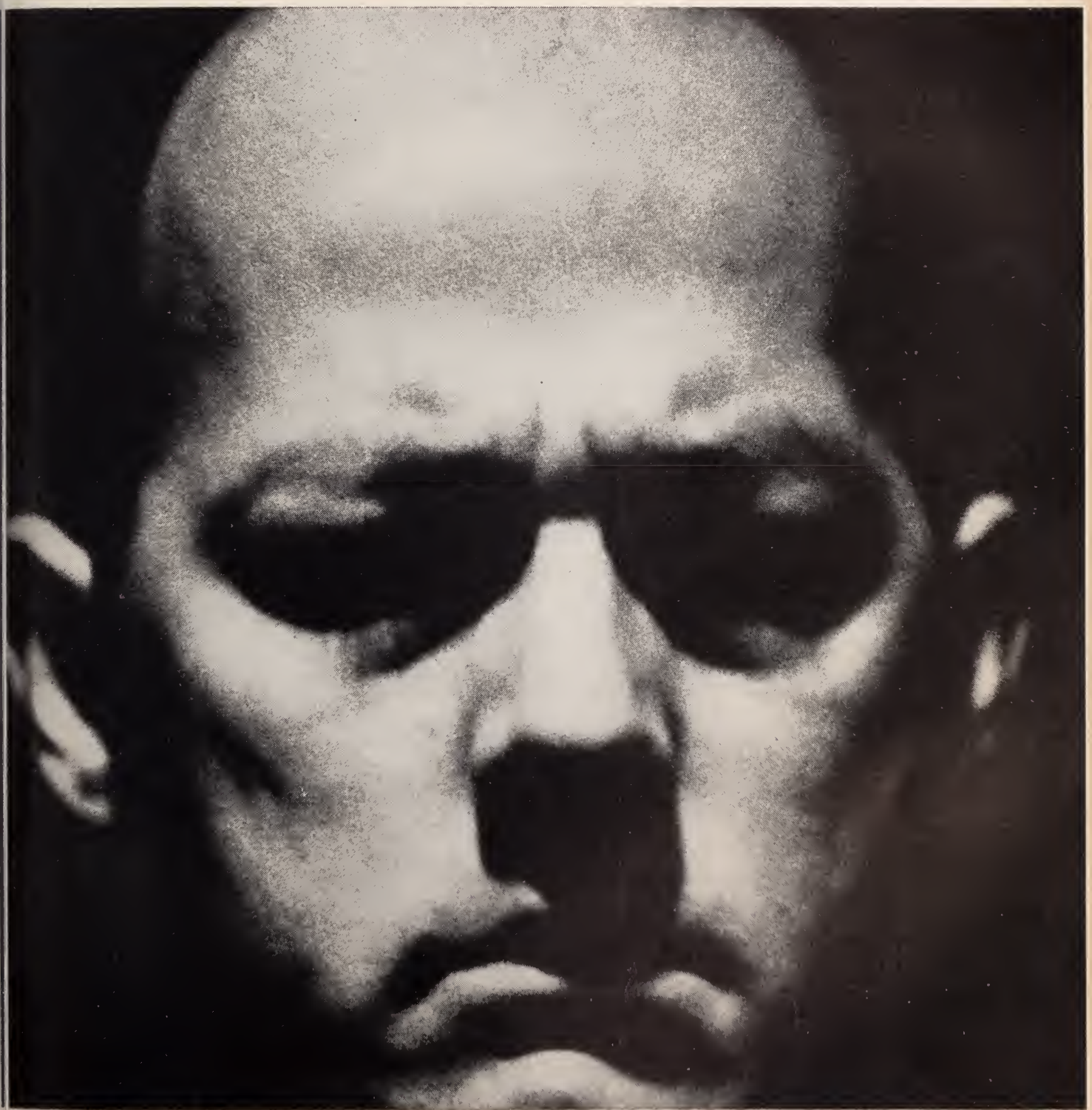
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3. Lubowe, I. I.: Western Med. 1:45, 1960.
4. Weissberg, G.: Clin. Med. 7:1161, 1960.

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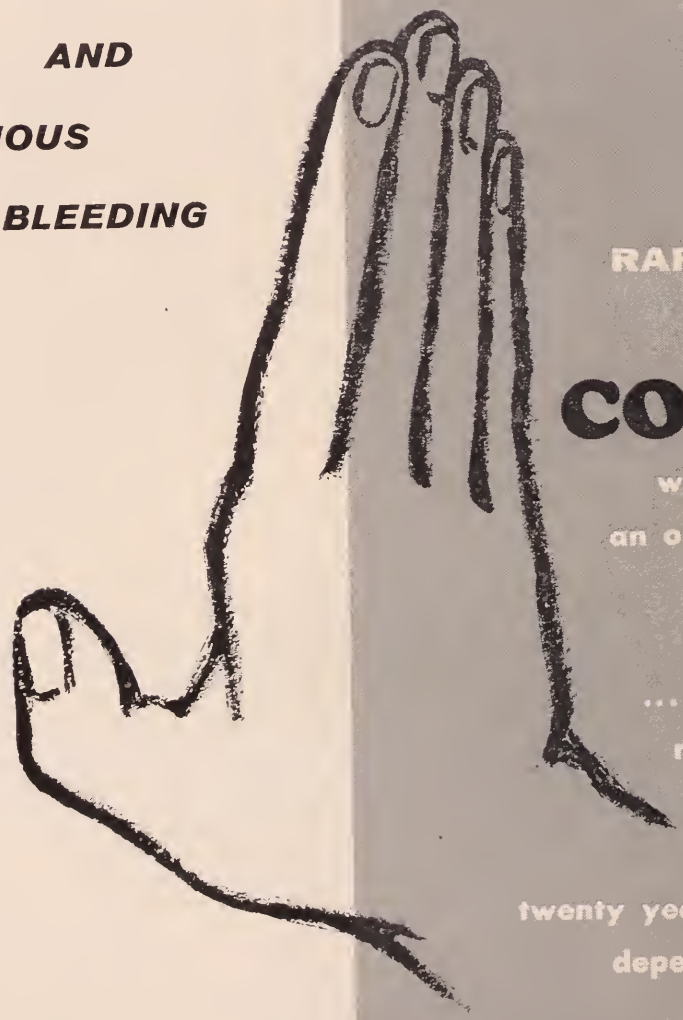
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References: (1) Moss, J. M.; Schreiner, G. E., and Sweeney, V.: M. Times *89*:12 (Jan.) 1961. (2) El Mahallawy, M., and Sabour, M. S.: J.A.M.A. *173*:1783 (Aug. 20) 1960.

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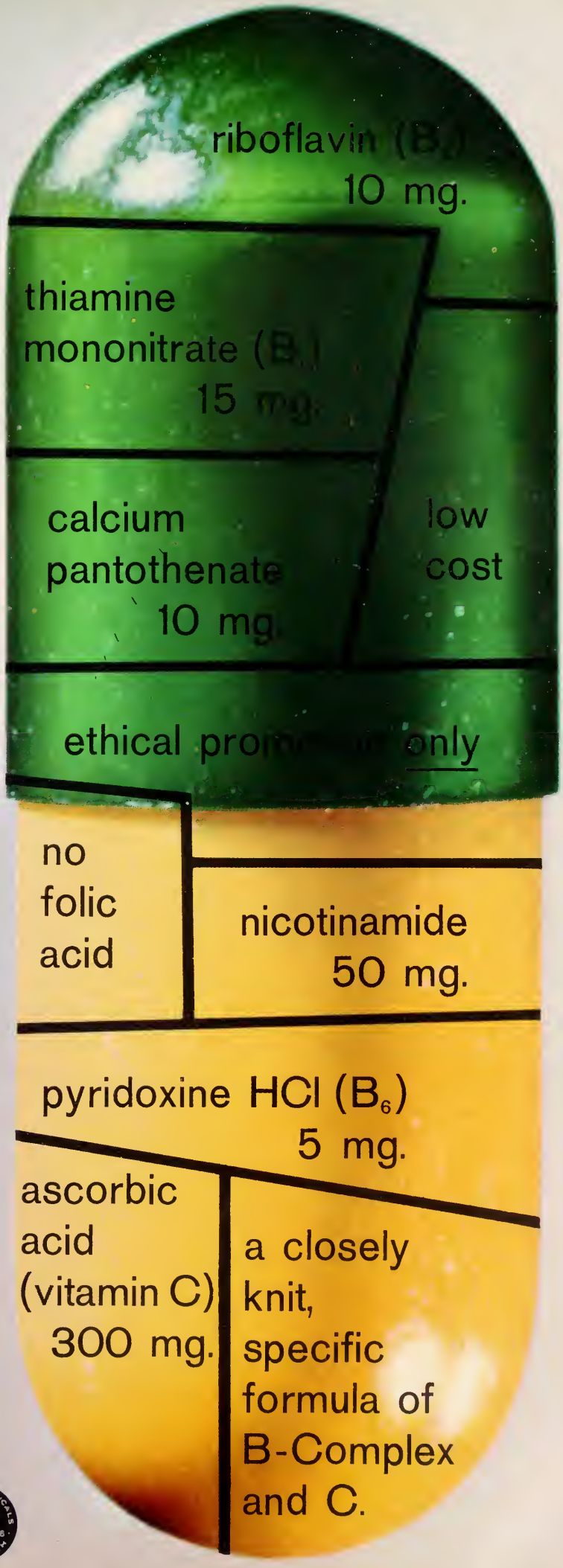
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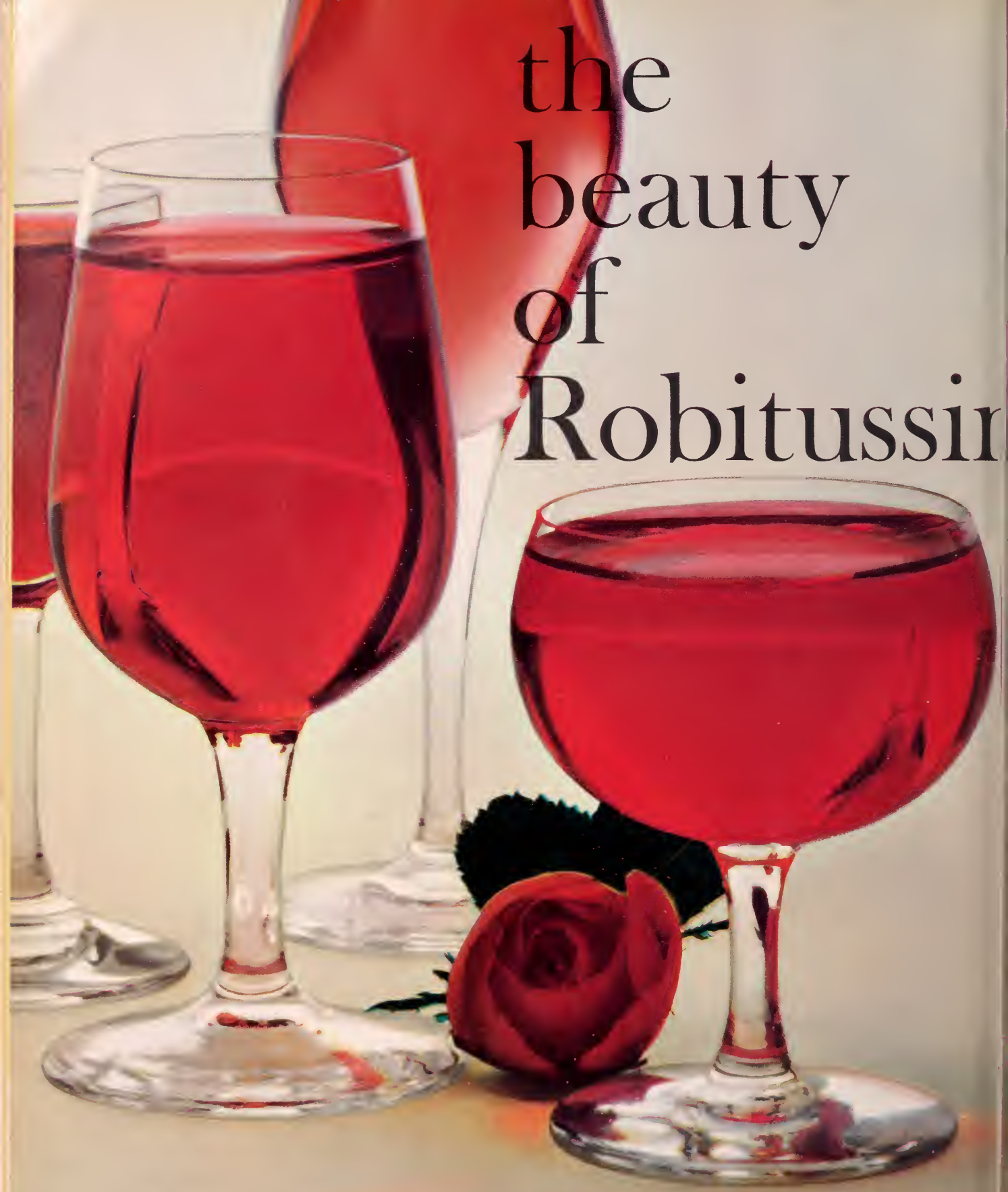
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1. Stevenson, L.E.: M. Ann. District of Columbia *30*:409 (July) 1961.



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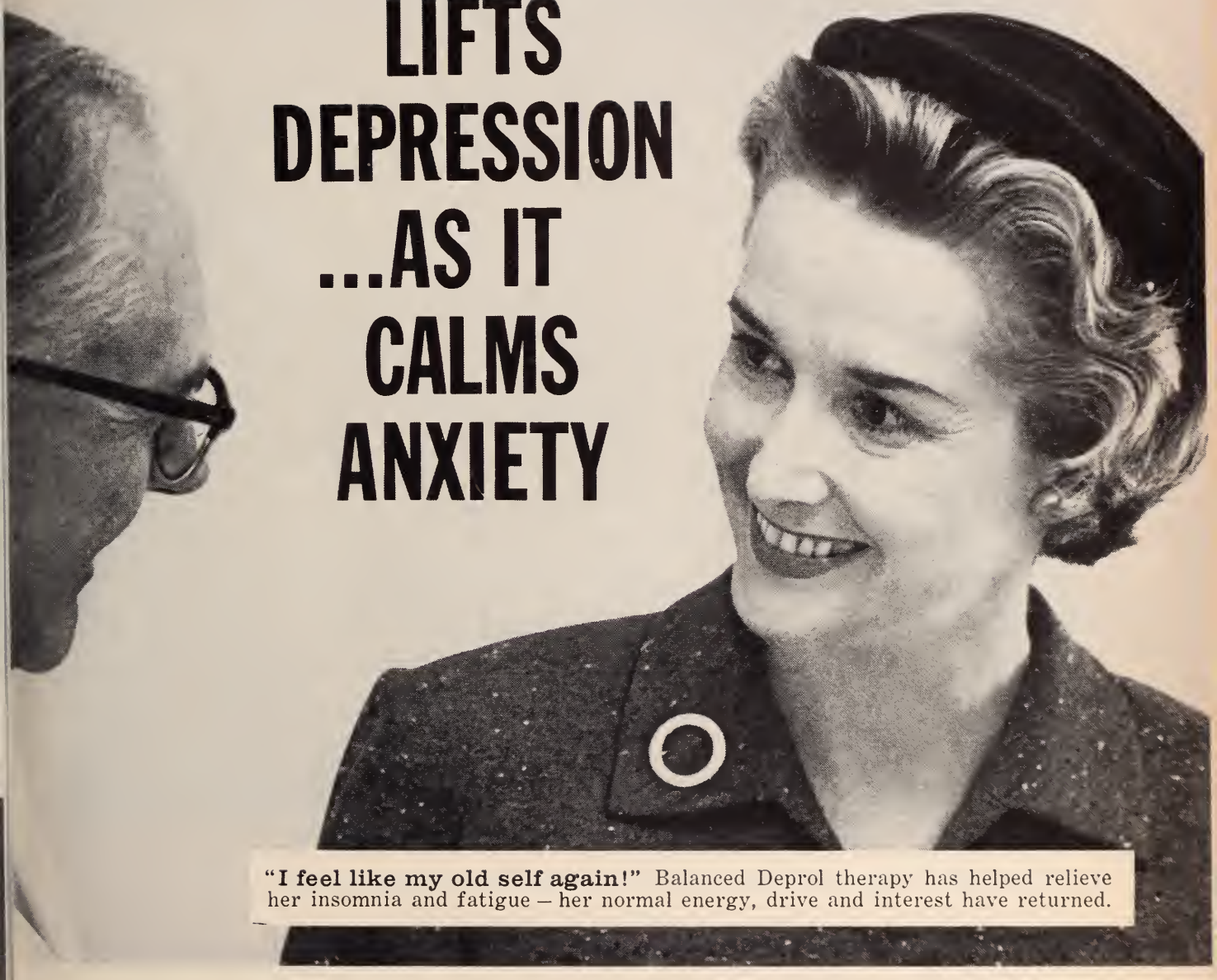
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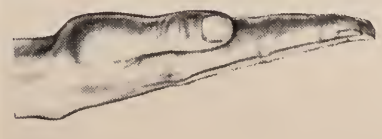
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1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.

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The ILLINOIS Medical Journal

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The Stillborn Fetus over Five Pounds

An Analysis of Preventable Factors

Matthew J. Bulfin, M.D., *Chicago*

The Suburban Cook County Committee for Maternal and Infant Welfare has been studying all perinatal deaths at its eighteen hospitals since 1955. During these years more than 175,000 births have occurred. All of the deaths have been assessed by the individual hospital committees as to possible factors of preventability. Attempting to assess factors of preventability in fetal deaths studies is not always easy. Errors in obstetrical judgment are not usually black or white. The error in mismanagement may often be one of degree. Criteria for preventability have been based upon the ideal obstetrical and pediatric management. Although it is obvious to all that the ideal may never be attained, it is nevertheless necessary to have the ideal as our objective if improvement is to be made. Studies of fetal deaths are most rewarding in the lessons that can be learned. Those of us who serve on perinatal death review committees soon familiarize ourselves with the major errors that are being committed. We have a first-hand method of comparing our practices and methods of management with those that were actually carried out. For the doctor who does obstetrics this is an excellent means of self-evaluation and improvement.

Table 1.
Causes of Death and Estimate of Possible Preventive Factors Among 195 Stillborn Infants

	No. of Stillborns	Possible Preventive Factors
Antepartum deaths — cause unknown — macerated	38	0
Abrupto placentae	36	
antepartum 20		0
intrapartum 16		7
Cord accidents	35	
before labor 19		0
during labor 16		8
Erythroblastosis	20	
before term 15		5
beyond term 5		5
Postmaturity	17	8
Anomalies	15	0
Toxemias	9	5
Intrapartum deaths — cause unknown	7	7
Diabetes	5	5
Transverse lie	4	4
Shoulder arrest	3	3
Midforceps trauma at delivery	3	3
Placenta previa	2	0
Nephritis	1	0
Totals	195	60

During the year 1961 there were 33,292 births at the eighteen suburban Cook County

Chairman, Suburban Cook County Maternal and Infant Welfare Committe; Clinical Instructor Stritch School of Medicine, Loyola University, Chicago; Attending Obstetrician, Little Company of Mary Hospital, Evergreen Park, Illinois.

hospitals. There were 443 stillborn infants or a 1.3% stillborn rate. 195 of the stillborn infants weighed five pounds or more (44% of total stillborn). It was felt that an analysis of the deaths of these larger stillborn infants might be of practical and didactic value. Each of these 195 deaths was reviewed with the idea in mind of assessing factors of preventability or non-preventability.

Of the 195 deaths with fetal weights of five pounds or more, it was felt by the hospital committees that sixty of these might have been prevented had the mother received the best possible obstetrical care (Table 1). Twenty-two of these sixty deaths (seven intrapartum abruptio deaths, eight cord accidents during labor, seven intrapartum with cause unknown) might have been prevented had the fetal heart tones been followed carefully. In many of these cases one or two hours had elapsed between checking of the fetal heart tones. In all of these cases FHT were recorded as normal on admission; yet sometime during labor the fetal heart tones disappeared, and delivery could not be effected quickly enough to secure a live baby. If all intrapartum deaths are to be prevented, careful ausculation of FHT is of prime importance. Checking FHT at ten or fifteen-minute intervals on all women in labor would indeed be a formidable assignment for most understaffed maternity units, yet the rewards in fetal salvage undoubtedly would be great. Monitoring of the patients in labor with fetal electrocardiograms undoubtedly would be an answer but there are few institutions at present that could arrange for such a facility.

Erythroblastosis

Of the twenty stillborn erythroblastotic infants, ten deaths might have been prevented if more careful attention was given to the mother during the final weeks of her gestation. In five of these deaths the mother had been allowed to go beyond her due date with a known history of RH sensitization or previous erythroblastotic death. It is felt that an attempt should have been made for pre-term delivery in these patients. None of these mothers had been examined for evaluation of the cervix as to its amenability for induction. A trial of Pitocin® or tocosamine or even artificial rupture of the membranes might have initiated earlier labor and yielded a live infant. Certainly if a patient has lost one or more previous infants through erythroblastosis, much consideration should be given to delivery as early as thirty-five or thirty-six weeks, depending on severity of previous involvement. Many infants at thirty-five or thirty-six week gestations have weighed five to six pounds and have had exchange transfusions done successfully. It is obvious from the previous history of some of these severely affected patients that if nothing is done, intra-uterine death will again occur at thirty-seven or thirty-eight weeks.

Postmaturity

There were seventeen fetal deaths in our series in which the mother had been three weeks or more beyond term. It is obviously wrong to state dogmatically that these infants died *in utero* because of postmaturity. However, in some of these cases, the mother stated that she had thought she was getting smaller and losing weight, or was not feeling as much life as formerly. The placental dysfunction syndrome is postulated to be the result of degenerative changes in the placenta resulting in progressive reduction in oxygen and nourishment to the fetus. In some of these seventeen patients this situation could well have been present. Two of these mothers were elderly primigravidas, three of them had various degrees of chronic hypertension, and two were mild toxemias — all of these factors in association with postmaturity could certainly have been death producing to the fetus. It can also be stated that if all seventeen of these patients had been delivered at forty-one or forty-two weeks when the fetus was apparently very active, a liveborn infant probably would have resulted.

Toxemias

Fetal deaths associated with toxemia in the mother are decreasing each year due to the more successful management of toxemia in general. Although severe pre-eclampsia is now relatively uncommon, there still are many cases of mild toxemia that do not tend to alarm the attending doctor. It appears that these mild

toxemias do exact a relatively high fetal loss. It is probable that the present day regimen of thiazide diuretics and Rauwolfia drugs keeps the clinical picture of toxemia mild and possibly even masks it; yet the placental involvement still seriously jeopardizes the fetus, especially if the patient is allowed to go past term. From our studies of the fetal deaths in toxemia, it appears that the patient with mild toxemia should be managed more aggressively — especially if she is near term. Labor should be induced if the cervix is amenable. If induction cannot be accomplished successfully, cesarean section could well be indicated, especially if patient is beyond her due date.

Diabetes

There were five fetal deaths associated with maternal diabetes in which the perinatal review committee felt that the mother had been allowed to continue too far along in pregnancy. Each of these stillborn infants weighed more than nine pounds. While it is true that there is no definite rule for setting a target date in delivering the diabetic patient, statistics support the generally accepted principle of delivering these patients as early as thirty-four to thirty-six weeks if necessary. The time of delivery must be individually decided in each case. A more liberal employment of cesarean section may prove necessary to effect the best fetal salvage possible.

Transverse Lie

There were four fetal deaths in our series directly attributable to the unrecognized transverse lie. In order save all of the infants prompt recognition of the abnormality is of paramount importance. The patient examined on admission to the hospital and found to have a presenting part almost out of reach of the examining finger should be suspected of having a transverse lie. Every suspected footling presentation should be carefully investigated to make certain that the foot and not the hand is presenting. Prompt abdominal delivery of these patients in most cases has proved safer for the mother and infant.

Shoulder Dystocia

There were three fetal deaths associated with the problem of shoulder dystocia. One of these infants weighed 13 lbs., 4 oz., one 13 lbs., 2 oz., and one 11 lbs., 1 oz. In each instance delivery was rendered most difficult by the large shoulders. Thirty to forty-five minutes elapsed in each of these cases before delivery could be effected. Each of these stillborn deaths occurred intrapartum. Shoulder dystocia is such a rare complication that no one can have any great amount of operative experience with it. Overanxious and too forceful pushing on the fundus and traction on the head merely add to the fetal and maternal trauma. If possible, rotation of the shoulder girdle into one of the oblique pelvic diameters will permit delivery without undue trauma in many cases. The operator's entire hand inserted along the hollow of the sacrum can effect delivery of the shoulder girdle and usually results in easy delivery. In more difficult cases it should be remembered that a reduction in the bisacronial diameter of the shoulder girdle must be made. Fracture of the clavicle will allow for collapse of the shoulder girdle. It should be done with the tip of the index finger snapping the clavicle outward so that bony fragments will not puncture the pleura. This is a small price to pay if the baby's life hangs in the balance.

Summary

1. Of 195 stillborn infants weighing more than five pounds, sixty (30%) of these deaths were adjudged by the hospital committees as having had possibly preventable factors.

2. Lack of careful attention to FHT during labor accounted for the greatest number of fetal deaths with preventable factors.

3. Fetal salvage could have been improved with better obstetrical management in erythroblastosis, diabetes, postmaturity, toxemia, transverse lie, and shoulder dystocia.

Multiple Aneurysms of Splenic Artery
Case Report and Review of Literature

Enrique T. Yap, M.D., and
Robert G. Combs, M.D., *Hoopeston*

Since Aneurysm of Splenic Artery was first mentioned in the literature by Beaussier[1] in 1770, there have been approximately 245 cases reported to date. Its incidence is quite rare and has been estimated from 0.02 per cent to 0.07 per cent in several autopsy reviews.[2-6] It occurs predominantly in females (2:1 ratio). Many of the cases reported were discovered at autopsy until 1903, when Winkler[7] discovered this condition as an incidental finding at surgery. Thereafter there have been more and more reported cases diagnosed clinically.

The last extensive review on the subject was done by Owens and Coffey.[8] They collected cases until 1953 and presented a total of 198 cases, plus their own 6 cases. Included in this review was a discussion of splenic artery aneurysm with regards to its etiology, incidence, pathology, clinical manifestations, and treatment.

Case Report

A 51-year-old Mexican female, slightly obese, para X, post-menopausal, was admitted to hospital on July 2, 1959, because of pain in the right upper quadrant. For about four years previous she had typical gallbladder colic, consisting of right upper quadrant pain with radiations to the back and accompanied by nausea and vomiting occasionally. Fatty foods produced frequent belching and abdominal distention. Last attack of this kind was two weeks prior to admission. There was no history of jaundice, hematemesis, acholic, or tarry stools. Physical examination revealed tenderness in the right upper quadrant without muscle guarding. No palpable mass or bruit could be found. The rest of the physical examination was essentially normal. Laboratory examination revealed: Hb-11.7 gm., WBC-8000, Polys-72, Stabs-3, Lymphocytes-23, Eosinophils-2. Urinalysis was normal. G.B. series revealed non-functioning gall bladder with stones, and splenic artery aneurysm.

The patient was operated the next day. A cholecystectomy, spleneetomy, and partial panereatectomy with excision of splenic artery was done. The tail of the pancreas was removed because of its intimate relation with the splenic artery aneurysm (Fig. 1).

Patient's post-operative course was punctuated with temperature spikes on the 10th day. A diagnosis of left subphrenie abscess was made and was drained five days later. Patient was discharged as improved approximately one month after surgery. She was readmitted three weeks later because of recurrence of subphrenic abscess which was drained for the second time. About 800 cc. of serous fluid was also obtained from the left pleural cavity. Patient was discharged three weeks later only to be readmitted on January 28, 1960 because of recurrent right lower quadrant pain with tenderness over McBurney's area. She was reoperated the next day and lysis of adhesions on the upper surface of the right lobe of the liver, excision of cystic left ovary, and an appendectomy was done. She recovered and her post-operative course was uneventful. She was discharged on February 14, 1960 and has been well sinee.

Discussion

Cosgrove et al.[9] listed 63 cases reported according to etiology and found arteriosclerosis as the most common cause. Some other causes mentioned include mycotic or embolic, congenital defects, trauma, etc. The splenic artery aneurysm developing on an arteriosclerosis basis represents the group that is most likely amenable to clinical diagnosis. The case reported was diagnosed preoperatively. It is interesting to note that one of the patient's sons died of ruptured spleen after a short illness, according to the history given by the patient. Since no further investigation of this case is possible, it is purely conjectural to presume some familial incidence. We could find no reported case in literature.

Fluroscopy and roentgen examination present the most valuable and convenient diagnostic tools for the diagnosis of splenic artery

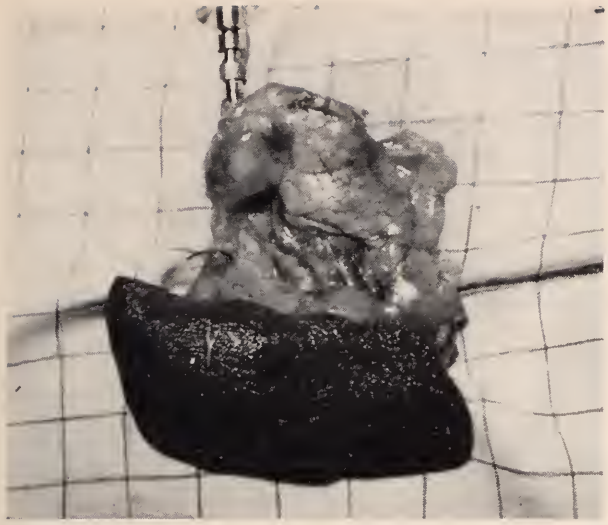


FIGURE 1. The surgical specimen, including the spleen, tail of pancreas, and the splenic artery and its branches. Some of the aneurysms are shown at the superior border of the specimen. The tail of the pancreas has been dissected and retracted down to show the hilus of spleen. Note the intimate relation of one of the aneurysms with the pancreas.



FIGURE 2. A flat plate of the abdomen demonstrating calcific densities (see arrows) in the left upper quadrant. Note the rounded and concentric appearance of the calcifications.



FIGURE 3. This a lateral projection showing the density at the region of the spleen, just anterior to the location of the left kidney. An intravenous or retrograde pyelogram should rule out any lesions in the urinary tract.

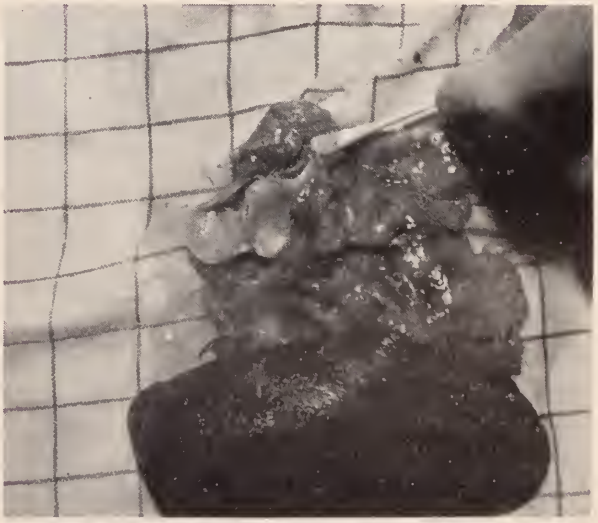


FIGURE 4. One of the aneurysms was opened to show its thin wall with patches of arteriosclerotic thickening. Danger of rupture in this case is impending.



FIGURE 5. The splenic artery is injected with radio-opaque dye to show the multiple aneurysms present. There are approximately seven aneurysms shown, varying from 0.5 cm. to 3 cm. in diameter. Note again the thinness of the wall of some of the aneurysms, also the distance between the biggest aneurysm and the rest. This aneurysm could have been missed if multiplicity was not kept in mind.

aneurysm. The aneurysm presents itself as an area of calcific density in the region of the splenic artery or spleen. This has been described as a well circumscribed, rounded or oval calcification with central mottling.[10] On an intravenous or retrograde pyelogram, the area of calcification appears above the left kidney.[11] Sperling[6] regards a localized pulsating filling defect in the posterior wall of the stomach on fluroscopy as an almost pathognomonic sign. There have been cases diagnosed with the aid of an aortogram, but this procedure is not without complications. Our own case was diagnosed preoperatively as a localized area of multiple calcific densities in the left upper quadrant and was an additional finding. The patient was primarily x-rayed for gallstones (Figs. 2 and 3).

Diagnosis may be made preoperatively if this condition is kept in mind. Major symptoms such as upper abdominal pain or discomfort, a mass or bruit in the left upper quadrant, and x-ray evidence of calcification in the region of splenic artery should be a basis for its diagnosis. As mentioned previously, it occurs very frequently in females.

There have been many reports that rupture of splenic artery aneurysm is commonly associated with pregnancy. No definite explanation could be given with this regard. In Owens and Coffey's collective review,[8] the evidence of associated portal hypertension in 20 per cent of cases and splenomegaly in 45 per cent also was mentioned. Both correlations are unexplained. In a good number of cases, including ours, there are multiple aneurysms present. Obviously many cases are asymptomatic prior to rupture or impending rupture. Our case presented no symptoms referable to the aneurysms. Nevertheless there was thinness of the aneurysmal wall. The splenic artery, being a direct branch of the celiac axis, receives the full impact of aortic pressure. Consequently any weakening of its wall predisposes to rupture.

The treatment is definitely surgical. Rupture of the aneurysm occurred in 46 per cent of the cases studied.[8] The best and most accepted method is splenectomy and excision of the splenic artery aneurysm. Alternative procedures have been mentioned, e.g., proximal ligation of splenic artery, splenectomy alone, clamping and ligation of the aneurysm, etc. In our case, a splenectomy and a partial pancreatectomy was done to excise the aneurysms completely. As illustrated in Figure 5, this is a case of multiple aneurysms extending to the hilus of the spleen and intimately adherent to the tail of the pancreas. Care should be exercised in the operative removal of this type of aneurysm lest remaining aneurysms be overlooked. There has been no such report in literature, but its probability is great.

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Preliminary Experience with a Long-Acting Quinidine Sulfate Preparation

M. W. Sbertoli, M.D., and L. A. Karkazis, M.D., *Evanston*

The Treatment of Cardic Arrhythmias is an important aspect of the physician's practice of medicine. Proper medical management is, of course, contingent upon accurate diagnosis of the specific arrhythmia, and where possible upon a determination of etiologic cause.

The saluatory role of quinidine in the treatment of various cardiac arrhythmias is voluminously documented in textbooks and current articles — it has been called the "drug of choice" so often that little attempt will be made here to be repetitious. The pharmacologic properties which make the drug so specific for certain aberrant rhythms are its depressant effects on the heart muscle itself. Quinidine decreases myocardial contractility and excitability. It prolongs the conduction time in the atrium, the bundle of His and the ventricle, thus slowing the transmission of abnormal impulses. Related to the decreased excitability and conductivity is the marked prolongation of the effective refractory period. Quinidine also has mild anticholinergic action and vasodepressor effects.

Further understanding of the mode of action of quinidine may be elicited from recent work which correlates the electrical activity of single cardiac fibers with changes in the cellular ionic flux and membrane permeability.[1] For example, Holland[2] has suggested that quinidine produces its effects by depressing the outward flux of potassium ions during repolarization, possibly by blocking the intracellularly-released acetylcholine. Acetylcholine, which increases the efflux of potassium ions and possibly the influx of sodium ions, was found to block the action of quinidine. Armitage[3] has indicated that quinidine decreases the efflux of potassium from the cell by decreasing membrane permeability to this ion.

Although it exerts desired pharmacologic action, quinidine is a toxic drug. As Goodman and Gilman[4] state ". . . when quinidine is used it must be employed with a good deal of knowledge, for it is a dangerous as well as an effective drug." But, as Sokolow[1] comments: "It must be remembered that quinidine is used in the treatment of organic cardiac disease, and that such patients are prone to unpredictable accidents even when quinidine is not given. Recent experience has shown that rational use of quinidine, based on serum quinidine determinations and frequent observations of the patient, both electrocardiographically and clinically, and the precautions noted . . . , can be more beneficial than harmful, although on rare occasions serious toxicity may occur. The risk for the use of quinidine cannot be completely avoided, but it can be considerably minimized."

Among the milder, but more frequent, limiting factors on the use of quinidine has been the incidence of various gastrointestinal disturbances, including nausea, vomiting, cramps and diarrhea. Other problems in maintenance quinidine therapy include the necessity for multiple daily dose schedules and the peaks and valleys of serum levels achieved with plain quinidine sulfate.

Various efforts to avoid or reduce multiple dose schedules, and at the same time to attempt diminution of the gastrointestinal disturbances, have been reported during the past 10 years. It is recognized that the gastrointestinal symptoms

From the Medical Service of Saint Francis Hospital, Evanston, Illinois.

which occur with quinidine may be the result of either local gastrointestinal irritation, or hypersensitivity, or of central nervous system action following larger doses.

The most that can be expected in the way of quinidine formulations is one that will provide an effective and constant quinidine blood level on the lowest possible total quinidine dosage administered the fewest number of times per day while minimizing local gastrointestinal irritation. It is known that effective quinidine blood levels apparently differ from condition to condition, from patient to patient, and perhaps also from time to time in the same patient.

Realizing the historical use of quinidine sulfate, and realizing the advances in the preparation of extended medication, Richardson, Zee and Wyso[5] have reported on comparative blood levels achieved with regular USP-quinidine sulfate and a long-acting preparation of quinidine sulfate. Their experimental design prevented a direct comparison of blood levels produced by identical maintenance doses of the two drug forms. However, they pointed out the considerable individual variation in the serum level produced by both formulations. In general, their subjects in whom high concentrations were produced by USP quinidine also had relatively high concentrations while taking the long-acting preparation. They did note that the individual variation was slightly smaller and that the blood level was more constant while the individuals were taking the latter. These workers found that 0.6 grams of the long-acting quinidine sulfate preparation administered at 12-hour intervals produced average quinidine serum concentrations in 10 patients of around 6 mg./L. This figure remained relatively constant from the third day on, with a range of from about 3.5 mg./L to around 9 mg./L. The USP quinidine sufate administered in the same 10 patients in a dosage of 0.4 grams 4 times daily yielded inconsistent serum levels around 6.5 to 11 mg./L, and with a range of from about 4 to 16 mg./L.

With the above as a background, this report deals with the clinical use of a long-acting quinidine sulfate preparation in the daily office practice of cardiology.

Procedure

A total of 24 patients (8 male, 16 female), ranging in age from 28 to 83 years, were treated with a long-acting quinidine sufate preparation.* Each tablet of this medication, the same as that utilized by Richardson, is formulated so as to release one-third of its active principle (0.1 gram quinidine sulfate) in the stomach. The remaining two-thirds (0.2 grams quinidine sulfate) is evenly distributed throughout a homogeneous core consisting of excipients which resist rapid solution, but which dissolve slowly as the core is transported along the intestinal tract.

Sixteen patients had premature ventricular contractions, two had chronic atrial fibrillation, 2 had paroxysmal atrial fibrillation, 2 had atrial flutter, 2 had premature atrial contractions, and 1 had paroxysmal atrial tachycardia.

With but three exceptions, the drug was used in a dosage of 0.3 grams orally every 12 hours. Two patients (Cases #17 and 21) received 0.3 grams every 8 hours, and one (Case #2) received 0.3 grams only at bedtime. All but one of the patients (Case #12 had rheumatic heart disease) had varying degrees of arteriosclerotic heart disease. Three patients (Cases #17, 19, 24) had had recent myocardial infarctions.

Results

As noted in Table 1, two patients (Cases #1, 15) developed untoward side effects of diarrhea or nausea after 1 day and 3 days of treatment, respectively, and medication was promptly discontinued. It is of interest to note that Case #1 had previously tolerated USP quinidine sulfate in a dosage of 0.20 grams without undesirable effects. On the other hand, the 22 remaining patients, all but one of whom have continued on therapy for periods of up to 7 months at the time of preparation of this report, observed no untoward effects of any nature. Patient #7 had previously experienced nausea and vomiting following administration of USP quinidine sulfate. Six patients (Cases #2, 4, 8, 9, 11, 23) had tolerated previous satis-

*Available as Quinidex L-A, Whittier Laboratories, Evanston, Illinois.

Table 1.

Results of Treatment with Quinidex L-A in 24 Patients

Case No.	Sex	Age	Condition Treated	Duration Condition	Duration Dosage	Untoward Effects	Therapeutic Response
1.	F	61	PVC	8 yrs.	1 day	Diarrhea	Drug discontinued
2.	F	55	Noct. PVC	3 yrs.	7 mo.*	None	Excellent
3.	M	53	PVC	?	7 mo.*	None	Excellent
4.	M	64	PNC-PAC	2 yrs.	7 mo.*	None	Good
5.	F	36	PVC	1 mo.	6 mo.*	None	Good
6.	M	83	PVC	1 wk.	11 days	None	Excellent
7.	F	80	PAC-PNC	3 yrs.	6 mo.*	None	Good
8.	M	62	PVC	4 mo.	6 mo.*	None	Good
9.	F	65	A. flut	2 da.	6 mo.*	None	Good
10.	F	78	PVC	2 mo.	6 mo.*	None	Good
11.	M	61	PVC	6 mo.	6 mo.*	None	Excellent
12.	M	56	PVC	5-6 yrs.	5 mo.*	None	Good
13.	F	57	PVC	6 mo.	6 mo.*	None	Good
14.	M	63	A. fibr.	2 days	1 wk.	None	None
15.	F	72	PVC	1 mo.	3 days	Nausea	Drug discontinued
16.	F	51	PVC	3-4 mo.	4 mo.*	None	Good
17.	M	54	PVC	4 wks.	4 mo.*	None	Excellent
18.	F	50	Par. PVC	1 day	3 mo.*	None	Excellent
19.	F	45	A. flut.	3 da.	3 mo.*	None	Excellent
20.	M	63	Par. A. fib.	3 yrs.	3 mo.*	None	Good
21.	F	72	Par. A. fib.	1 da.	2 mo.*	None	Excellent
22.	F	72	PVC	1 mo.	2 mo.*	None	Good
23.	F	28	Par. A. tac.	4 mo.	2 mo.*	None	Good
24.	F	53	PVC	8 wks.	1 mo.*	None	Good

*Continuing as of October 10, 1961

factory treatment with USP quinidine sulfate.

One patient (Case #14), who was started on the long-acting quinidine sulfate preparation after 2 days of auricular fibrillation, failed to respond to a dosage of one tablet every 12 hours; attempts to revert this patient to normal rhythm with other anti-arrhythmic preparations in various dosages likewise failed.

Of the remaining 21 patients, 8 were categorized as having had an excellent response and 13 as experiencing a good response. The term "excellent" was used when there was complete abolition of the aberrant rhythm for which the drug was used. The term "good" was used when there was a pronounced improvement in patient symptomatology and a marked diminution in the frequency of the arrhythmia.

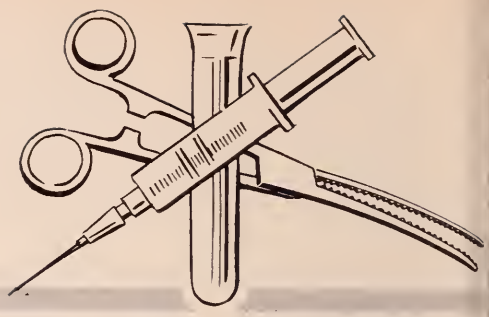
Serum blood levels for quinidine were not determined in any patient. Periodic electrocardiograms were obtained in all patients. In no instance was the drug discontinued for a period in an effort to ascertain relapse rates, and no attempt was made to compare the clinical response in this group of patients with alternative anti-arrhythmia preparations.

Summary

This report deals with preliminary results of treatment with a long-acting quinidine sulfate formulation in 24 patients in a private cardiology office. Initial impressions with this preparation appear extremely favorable, since 8 patients had an excellent therapeutic response and 13 others experienced material improvement on a low-dosage schedule. In 2 patients the drug had to be discontinued after short-term trial because of the development of diarrhea or nausea, but no other untoward symptoms were noted. One patient with auricular fibrillation of 2 days' standing failed to revert on low dosage of the preparation, but he was shown to be refractory as well to other anti-arrhythmic agents in various dosage levels.

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Anesthesia Conference

SHOCK
A different K approach to therapy

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Need For A Newer Approach

It is apparent that the classic concepts in the management of shock are not without fault and the shock state is still attended by a very high mortality. The past twenty years have been a period of intensive study and progress in the surgical and medical management of shock. Antibiotics, vasopressors, steroids, electrolytes, and unlimited supplies of whole blood have become everyday additions to our armamentarium in the therapy of shock. Nevertheless, the clinical entity of irreversible shock remains.[1,2]

The current management of hemorrhagic shock has revolved around the immediate restoration of blood volume by transfusions or plasma expanders. When the blood loss has been extensive, fatalities have been remarkably high. It has been conceived that a change in our approach has been warranted. To this end, the technique of ganglionic blockade has been instituted as the key feature of therapy and only when the bleeding source has been arrested has blood replacement been actively pursued.

Brief discussion of experimental studies on shock will be followed by presentation of the concepts of vasoconstriction versus vasodilation in the development of hemorrhagic irreversible shock.

Pathogenesis of Shock

Various initiating factors may produce pathological changes in the physiology of the cardiovascular mechanism. Thus, hemorrhage, or any factor producing a discrepancy between the capacity of the vascular bed and the actual circulating volume will reduce the *effective circulating volume* and the flow to the tissues. With reduced flow from whatever cause there will be reduction in the delivery of oxygen to

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the tissues; thus, *ANOXIA*[3].

Physiologic Adjustments to Shock

The physiologic adjustments to acute hypovolemia have been delineated by a number of observers.[4-6] The immediate response to hemorrhage is vasoconstriction at the level of the *metarteriole*. This increases under adrenergic influence with the resultant closure of the precapillary sphincters and the shunting of blood with high oxygen tension back into the central circulation by *direct* arterio-venous communications. With the extreme vasoconstriction and arterio-venous shunting which occurs as the stressing phenomenon continues, peripheral tissues in the extremities, the splanchnic bed, the liver, and the kidneys may become *anoxic*.

Prevention of Irreversible Phenomena

It has been considered that the irreversible stage of shock may be caused by *physiologic and biochemical reactions* which are *secondary* to the *hypovolemic state* and which are mediated via many pathways. One laboratory observation is that the irreversible phenomena in severe shock can be prevented or delayed by a number of different methods involving blockade of the sympathetic nervous system.

Of the agents which have been found to influence the nervous system responses to a wide variety of noxious stimuli, chlorpromazine is perhaps the outstanding example. Courvoisier[7] described an amazingly large number of actions possessed by the drug including gangliolytic, adrenolytic and antishock properties. In addition the drug was found to enhance the potency of a number of analgesic and central depressant drugs.

Animals pretreated with chlorpromazine have been shown to survive degrees of trauma and hemorrhage which were universally fatal to untreated groups.[8] Hershey and his coworkers[9,10] noted that chlorpromazine is capable of eliminating or attenuating many of the decompensatory phenomena associated with the irreversible phase of the shock syndrome produced by trauma or hemorrhage.

Recent reports have described improvement in mesenteric and renal blood flow following the administration of chlorpromazine to animals already in shock. There also is an increased survival time in these animals[11,12] and a higher number of survivors.

Application of the concept of ganglionic blockade in clinical medicine has been limited. Recently Converse, McKechnie and Boba[13] reported eight cases of extreme shock in human subjects which were treated with Arfonad. Others have also reported occasional cases of shock presumably benefitted by ganglionic blockade.[15]

In 1958 it was decided to treat a large series of cases of hemorrhagic shock in this manner to test the validity of the concept that ganglionic blockade may be beneficial in the management of such cases. Chlorpromazine was chosen as the agent for ganglionic blockade because of its use in previous laboratory studies.

Method

The present study of profound shock was carried out on 385 cases of hemorrhage. Conventional premedication was ordered for all patients as indicated by their preoperative condition. Chlorpromazine also was administered to all patients, except the control groups, either preoperatively and/or during the operation. The dose of chlorpromazine varied from 10 mg. to 100 mg. in divided doses. An adequate dose was judged as having been given when the patient's color was pink, capillary refill was good, and in general tissue perfusion appeared to be adequate. Whenever possible, blood replacement was restricted until the hemorrhage was surgically controlled. No attempt was made to raise blood pressure above a standard figure in either treated or control groups by vasopressors or massive transfusions. Until bleeding was controlled replacement was limited to that necessary to maintain vital signs at a normal perfusion level. After bleeding was controlled, blood replacement was undertaken rapidly until the normo-volemic state was judged to have been reached. Almost all cases were done with cyclopropane endotracheal anesthesia. Use of vasopressors was discouraged, though some patients received metaraminol or levarterenol pre- or post-operatively at the surgeon's insistence. Surgery and anesthesia were performed by the resident house staff at Bellevue Hospital and Cook County

Hospital. Patients were considered to have survived if they were alive 14 days after surgery.

Patients were separated into three groups and each group was further divided into the control and treated patients.

Group I: Patients requiring emergency surgery because of massive gastrointestinal hemorrhage with shock or impending shock. All patients were classified into physical status VI and VII. Of these patients, 51 received chlorpromazine, the remaining 79 acted as controls.

Group II: Patients with shock unrelated to G.I. hemorrhage. This included patients in shock from all other types of hemorrhage and trauma and 86 such patients were investigated. Of the control group 112 patients were operated before October, 1958.

Group III: Patients requiring massive transfusion greater than five pints of blood intraoperatively and developing shock in the intraoperative period. Thirty-six received chlorpromazine and 32 that did not receive the drug acted as controls.

Results

In Groups I, II and III the mortality rates in the chlorpromazine treated patients were 27.5 per cent, 11.6 per cent and 22.2 per cent respectively. In the non-treated patients the mortality rates were 43.0 per cent, 28.5 per cent and 53.1 per cent. By comparison, the mortality rates in the chlorpromazine treated patients were about one-half, an extremely significant figure.

Observations on Renal Function

A striking observation of chlorpromazine treated patients was that postoperative renal depression did not occur. Neither anuria or oliguria was seen. Indeed the average urinary output in the first 24 hours was 1275 ml. and it was higher on subsequent days. The range in output was 900-2100 ml. The traditional renal suppression of surgical shock was thus effectively eliminated. In contrast, the average urine output in non-chlorpromazine treated patients was under 300 ml. in all cases with an average of 175 ml. Also, 8 per cent of the patients had less than 50 ml. of urine output in the first 24 hours.

Discussion

A number of the clinical features of shock such as low or absent blood pressure, subungual cyanosis and the extreme pallor can be explained on the basis of extreme vasospasm. Obviously a patient with no blood pressure or pulse is dead. However, patients in shock may have such extreme vasospasm that no pulse and/or blood pressure may be palpable or audible in the extremity, but the patient is obviously still alive. Though the extremities are cold, this is not a reflection of hypothermia but rather of lack of circulation. The same phenomenon of vasoconstriction occurs in the kidneys, and also in the splanchnic bed which appears pale, dusky, and congested in the vasoconstricted phase of shock. It can readily be seen following a dose of chlorpromazine that the extreme vasoconstrictor response to hypovolemia is reversed in the extremities which become warm and pink, and now begin to display filling of the venous channels which were previously collapsed. Similarly observation of the splanchnic bed reveals that the chlorpromazine will change the appearance of the bowel from a congested cyanotic organ to a pink viable uncongested one. Chlorpromazine has frequently been used to overcome severe vasospasm that has occured during induction of hypothermia, and its use is recognized as an adjunct to the cooling of the patient by increasing the circulation where the cooling is attempted — at the surface. Before chlorpromazine is administered to patients subject to hypothermia, sphygmomanometer blood pressures may be unobtainable although intra-arterial pressure readings are at normal values. After administration of chlorpromazine pressure readings are obtainable with the sphygmomanometer and these values are simliar to those obtained intra-arterially. It may be concluded that the severe vasospasm during hypothermia prevented adequate sphygmomanometer readings and the chlorpromazine counteracted the spasm to allow subsequent readings by perfusing the peripheral vessel.

A number of investigators consider that vasoconstriction, one of the basic protective mechanisms in hypovolemia, may itself become an independent noxious stimulus. Beyond the vasoconstricted areas anoxia occurs with

consequent impairment of tissue function. A point is reached where perfusion of tissues is sacrificed in order to maintain the internal blood pressure of the body. Irreversibility in shock may be related to this extreme vasoconstriction.

Conclusions

1. Tissue perfusion and oxygenation are probably the key factors which contribute to the outcome of a patient in shock and determine irreversibility.

2. Systemic blood pressure as recorded by auscultation may not indicate the blood flow, perfusion, or oxygenation of many vital organs.

3. The use of vasopressor agents to maintain blood pressure by further vasoconstriction may cause irreparable tissue anoxia, thereby worsening rather than improving perfusion and oxygenation.

4. Chlorpromazine seems to effectively overcome the severe vascoconstriction which occurs in profound shock and allows at least temporary life-sustaining perfusion of the kidneys, splanchnic bed, extremities, brain, and heart even at low blood pressures until normovolemia can be restored.

5. A re-evaluation of the classic treatment of shock is in order.

6. In the future hemorrhagic shock may be treated as follows:

 a. Ganglionic blockade to prevent irreversibility.
 b. Immediate surgery to stop bleeding—without preoperative stabilization.
 c. Sufficient volume replacement to only produce stability and thus to reduce the incidence of untoward and not infrequently fatal reactions to blood transfusion.

Summary

In summary, 385 cases of severe hemorrhagic shock occurring before or during operation were managed with the aid of ganglionic blocking agent, namely chlorpromazine. Vasopressor agents were not employed. Considering overall mortality, urinary output, and lack of adverse cerebral and myocardial effects this method of management seems to offer a better prognosis than previous classical methods of shock management.

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No Diseases Completely Eliminated

Whether you or I live, suffer or die depends on our physicians and the weapons that are placed in their hands. The pharmaceutical industry is the principal arsenal of these weapons. In large measure, through the research, skill and know-how that our scientists have patiently developed, we have made more gains in the last half century in the conquest of disease and the prolongation of life than has been achieved in the entire 999 centuries of man's previous existence on earth. And yet our work has just begun. Not a single disease has yet been completely eliminated, and so much remains to be done. *Theodore G. Klumpp, M.D., President, Winthrop Laboratories to House Interstate and Foreign Commerce Committee, August 20, 1962.*





The Autumn Wheezer

JULIUS M. KOWALSKI, M.D., *Princeton*

Having climbed a ridge, slogged through a marsh or plodded across a meadow, he now clings overhung to a fence post, fighting for air after every labored wheeze. It couldn't have happened at a more inopportune time — the first hunt of the season. He lagged farther behind his companions with each stride and it seemed to him that his dog was especially fast as the day progressed. He is the unfortunate victim of the smoldering disease asthma and now a respiratory cripple.

Each year he has gained a few more pounds; he might even admit that he is obese. His physical activity has slowly decreased over the years and he only experiences deep or labored breathing during infrequent asthmatic attacks. Deep breathing he knows about; the comic strip hero reminds him of this beneficial exercise as he scans the paper slouched in an easy chair after a filling Sunday dinner. His shallow breathing, a habit, results in excessive retention of carbon dioxide and this hypoventilation manifests itself in weakness, fatigue and somnolence. He remembers that as a youngster his mother would air the bedding and wearing apparel, hanging it out the window or over the banister. In cold weather the washing froze stiff on the line and was taken into the house as armloads of wood. This was practiced, too, in fashionable neighborhoods. Somehow, everyone was aware that fresh air, deep breaths and sunshine were good. But no more. The dryer in the utility room or the laundromat has done away with the many steps, the bending and stretching from wash basket to line, and the lungs full of gusty wind that young fry and mothers knew years ago. Many boys and men huffed and puffed throughout the day at their respective tasks or while doing evening chores.

True, the air oftimes was filled with smoke of wood or soft coal soot from kitchen ranges or passing trains. But there seemed to be some fresh air between the visible hunks of airborne debris, not like the insidious smog of our present industrial society.

Men of that era enjoyed the smoking of a pipe or on occasion, a cigar in leisure. Today our man inhales cigarette smoke from early morning to the last moment before retiring at night, a continual irritation to the respiratory system throughout the day. Of course he wheezes.

If the man afield has cardiac asthma, he is not apt to walk far nor fast for in all probability, he has experienced a frightening nighttime episode of suffocation and fear of impending death. He has heart disease, hypertension and rapid pulse. During attacks, he breaks out in cold sweats and his skin blanches. He is sick and knows it; medical surveillance is his passport to longevity.

The fellow afflicted with infectious asthma is sick, too. His nimrod ventures should be cautious since attacks occur most frequently during inclement weather and are heralded by a prolonged head cold. He has a pronounced, persistent cough, exudes purulent nasal and bronchial secretions, and has an elevated temperature. He is uncomfortable at best, and moderate activity saps his diminished strength which results in more labored breathing until he strenuously gasps in a sea of air. Air everywhere, but not for him. This is an emergency of the first order, status asthmaticus.

Emphysema is the progressive respiratory disability, years in the making, with allergic asthma and chronic bronchitis as the frequent precursors. The lungs possess remarkable reserve and compensatory function to repeated insult, so the afflicted, unfortunately, does not begin to complain of breathlessness until about

one-half of his pulmonary capacity is irretrievably lost. The bronchi collapse during expiration due to their loss of elasticity from prolonged, often seemingly irrelevant disease. The forward attitude of his trunk, with elbows on knees when at rest, the wheeze on any effort and pursed lips to assist ventilation identify him as one whose actions afield are definitely limited.

The allergic asthmatic, before he earns this ignoble epithet, has been plagued by various allergic discomforts. He knows what it must feel like to have pepper in the eyes with a nose that drips clear mucus incessantly and one so blocked that only the open mouth affords an avenue to respiration. About 50 per cent of hay fever attacks terminate in varying degrees of allergic asthma. The attacks in some are only seasonal, but in others perennial, depending on the presence and density of offending agents. Generally, he is not ill; but certainly he is not well — just miserable. He can and often does partake in taxing physical activity, but his achievements are curtailed. Anxiety invariably is a part of this clinical picture and is only accentuated by frustration which follows substandard performance. During an attack the wheeze is audible several feet from the patient, but then again during quiescent stages, it may be difficult to detect, if at all.

The allergic individual can often, but not always, attain a better state of health by remaining under medical management rather than indulging in promiscuous self-medication. To find the offending allergens is the primary goal, be it by skin testing, carrying a diary and noting all foods ingested, articles worn, or making hourly notations on general feeling.

The pollens are well known offenders, particularly ragweed, but before these make their appearance in mid-summer the pollens of trees and grasses have made their presence known to many sufferers. In the southern states, grass pollens are present for many months longer than in the north. Tree pollination occurs earlier in the year and generally lasts somewhat longer. The outdoor enthusiast from the north sojourning in the southern states in October will find the pollen status much as it was at home during August. Anything that blooms is a source of pollen which under particular circumstances in certain individuals can be a source of distress, be it a birch tree catkin or the fanciest triple A rose.

Dusts are regular offenders because they are minute disintegration products of all materials continually about us, such as house and industrial dust. Wool and other fabric lints, kapok, feathers, animal hair and dander, insect debris, foliage dusts, tobacco and grains, particularly oats and wheat, precipitate attacks in sensitized individuals.

Molds and spores of fungi are most offensive in damp weather, but are present to some degree at all times except in the most arid areas.

Foods surely need evaluation. The grains (wheat, oats and corn) are primary offenders, as are the many foodstuffs derived from them in pure form or mixtures, e.g., corn syrup and alcoholic spirits. Sea foods are relished by some, but the diner is not liked by the food and soon learns of this. Rashes or hives are known to many after ingesting fresh fruits or vegetables such as strawberries or tomatoes.

Then there is a small group of allergic, wheezing individuals who, after being most diligent, are unable to obtain complete relief since they have become sensitized to the products of their own bacterial infections.

One contemplating more than usual activity afield and afflicted with an allergy which could become asthmatic needs medical management. Desensitization injections may be required for months and dosage changes in medication may be frequent. As one prepares for the coming outing by increasing his walks and pushing exertion a little more each day, adjustments in medication will have to be made also. This, along with breathing exercises and a prescribed regime, will make for a successful physical event.

The antihistamines have been a boon to allergic sufferers. Though the effective products in therapeutic ranges can be obtained only by prescription, milder antihistamines are sold over the counter in tremendous quantities. It is by indiscriminate use that the average individual can get into deeper trouble with his allergic problem, namely, over-medication. Antihistamines are depressants, dulling sensibilities often when they are most needed. Antihistamines and gun powder don't mix any better than alcohol and gun powder. The handling of firearms demands at all times the

utmost in body control and precise coordination of eye, mind and extremities. Anything that interferes with this fine physiologic flow (and depressants certainly do) compounds the hazards for the hunter and others. Often a useful substitute for, or companion to the antihistaminics in the management of respiratory allergies are the ephedrine-like preparations. In addition to their symptom-relieving bronchodilating effects, they exert a desired CNS stimulating effect to offset the depressant action of antihistaminics.

Inhalers and snifters are used too often under stress when only a few hours are available for a sport. The point of diminishing returns is soon reached with repeated use of this medication, making a difficult breathing problem worse with further use.

Day's end finds the asthmatic hunter fatigued, weary as he hasn't been in months from prolnged exertion and little sleep the previous night, hungry, dehydrated and with the ever-present wheeze. He has overstayed his leave; he downs a hooker or perhaps several to the success of the day afield or lack of it. Permeated with depressant drugs, he drives headlong into the night to make up lost time. He is a wrapped package ready for snatching by the grim reaper who forever stalks the highways.

Psychiatry in Gynecology The gynecologist has been too long in recognizing that he is as obligated to treat the functional gynecologic disorders by psychiatric methods as he is willing to treat the organic, pathologic, and anatomic disorders by surgical methods. Indeed, the practice of gynecology almost ceases to be a surgical specialty when one looks at the preponderance of psychophysiologic disease in this area.

The purpose of this presentation is to consider some aspects of the management of functional gynecologic disease by psychiatric methods, and, more specifically, to evaluate one of the drugs which seem to offer promise for these disorders. Today, drug therapy is an important part of the psychiatric modality; combined with psychotherapy it offers a most satisfying method of managing otherwise extremely frustrating conditions.

Initial experience with any drug may be discouraging, especially in gynecologic disorders. Unless the therapist keeps in mind that the "tense" patient does not really want to give up her tension, but only the uncomfortable symptoms associated with it, he may be inclined to reject a really effective drug simply because the patient says, "I don't like the way it makes me feel." Or, unless he knows that the depressed patient is almost always "made worse" by any effective tranquilizer drug that is prescribed, he can rarely get beyond the initial prescription for this type of patient. Furthermore, it must be recognized that drugs without psychotherapy accomplish little.

It was of interest to learn in early reports of chlordiazepoxide that this psychotropic drug appeared to have a specific effect upon anxiety and tension. This finding suggested its possible value in the management of psychosomatic gynecologic disease in which these two symptoms are so prominent. The unique chemical and clinically effective characteristics of chloriazepoxide and its widely demonstrated freedom from serious side effects were factors in the decision to evaluate this agent in a series of private patients. S. *Foster Moore, Jr., M.D., Therapy of Psychosomatic Symptoms in Gynecology, An Evaluation of Chlordiazepoxide, Current Therapeutic Research. May, 1962.*

The View Box

FRANZ GAMPL, M.D., *Chicago*



FIGURE 1. Anterior-posterior view of the left foot.



FIGURE 2. Oblique view of the left foot.

This 34-year-patient had been a mailman for eight weeks. He sought medical advice because of persistent, dull pain in his left foot. This pain had been present for the past five weeks. On physical examination there was tenderness to pressure over the distal part of the second metatarsal of the left foot. The soft tissues did not show any evidence of infection. The patient was referred for radiographic examination of the painful area.

What is your diagnosis?

Osteoid osteoma
Localized Paget's disease
Fatigue fracture
Chronic osteomyelitis

(continued on next page)

From the Department of Radiology
Cook County Hospital

The View Box — diagnosis and discussion

(continued from preceding page)

The diagnosis is march or fatigue fracture of the second metatarsal bone.

Etiology: The most common insult leading to fatigue or stress fractures is that of repeated trauma. Although the individual traumatic event is of insufficient strength to cause a fracture, repeated subthreshold stress will by summation exceed the strength of the osseous structure. Single events such as strong muscular contractions also may lead to stress fractures. Well known are the fractures which occurred in the vertebral bodies during shock therapy prior to the advent of muscle relaxant drugs. Strong muscular contractions during forceful coughing may lead to "cough fractures" of the lower ribs. Congenital anomalies which result in abnormal weight bearing and abnormal muscular action favor the occurrence of fatigue fractures in the lower extremities. Congenital shortening of the first metatarsal bone (Fig. 1) causes the axis of the metatarsophalangeal joints to transverse the shafts of the second and third metatarsal bone. This results in abnormal weight bearing and predisposes to the typical march fracture at the distal shaft of the second and third metatarsal. Metabolic bone diseases such as osteoporosis not infrequently contribute to the occurrence of fatigue fractures.

Localization: The majority of fatigue fractures are represented by the march fractures of the second and third metatarsal. Other osseous structures may show stress fractures due to different forms of unphysiologic strain. The bones of the lower extremity are most frequently involved. Fatigue fractures in the osseous structures of the upper extremity and shoulder girdle are rare.

Clinical findings: Pain in the affected bone is the most common symptom. The history of sustained physical activity is important for the clinical diagnosis. Soft tissue swelling and tenderness may exist over the fracture site. At a later stage the periosteal callus may give raise to a hard lump which may be alarming to the patient.

Radiographic findings: In the early stage a very delicate fracture line may or may not be demonstrable. Callus formation is present after two or three weeks. At that time the fracture line is clearly visible as a transverse band of radiolucency. Localized periosteal reaction along the cortex may be demonstrable. The presence of the transverse band of radiolucency serves to exclude other osseous lesions such as osteomyelitis, localized Paget's disease and bone tumors.

Treatment: Immobilization of the fracture site by a cast is the usual treatment. The length of application varies with the site of the fracture. Surgical corrective measures may become necessary in recurrent cases.

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Fossil Pattern

"The record of past plant communities provided by the fossil pollen and spore content of sediments is useful in the study of climatic and environmental change. Palynologists (pollen and spore specialists) can study pollen rains quantitatively. A reflection of major ecological, evolutionary, geological, and archeological events can be found in changes in the pollen stratigraphic record. Although not all sedimentary deposits contain fossil pollen — surprisingly enough, not even certain beds rich in fossil leaves, fruits, and vertebrate remains — a given sedimentary deposit is more likely to contain these microfossils than to contain any other plant remains. The chemically resistant outer walls of pollen and spores are the most abundant fossils of terrestrial origin. Their singular abundance has led to the widespread use of fossil-pollen data in practical stratigraphic problems such as petroleum exploration.

The relative abundances of different kinds of pollen are plotted against geologic time, and the graphic record is known as a pollen diagram. Before going out to a discussion of the results of late Cenozoic pollen studies in western North America, we will point out certain problems which arise in the interpretation of pollen diagrams." *Paul S. Martin and Jane Gray. Pollen Analysis and the Cenozoic. Science, July 13, 1962.*

A Clinical Evaluation and Comparison of Three Types of Artificial Infant Formulas

Merle L. Otto, M.D., *Frankfort*

The Medical Literature contains very few articles evaluating *clinically* the development of a new-born infant in relationship to the type of formula he is fed. In this study we have attempted to evaluate and compare clinically 150 full term infants fed on three different types of artificial formulas during their first five months after birth. Fifty infants were followed in each group on formulas of 1) cow's evaporated milk and water with added carbohydrate, 2) cow's evaporated milk and water without added carbohydrate, 3) cow's homogenized milk.

Background

As early as the nineteenth century an effort was made to scientifically prepare artificial formulas. The percentage method was introduced by which the various contents of the formula were calculated in percentages. At that time also rigid schedules of feeding were established and definite optimal amounts to be fed each feeding was introduced. Constant juggling of the formula took place as the baby grew, a practice which is still carried out by some doctors. It has since been noted that frequent formula changes are poorly tolerated, especially if the infant is ill.

Discussion of Types of Formulas

Evaporated Milk Formula With Added Carbohydrate: The most commonly used artificial formula for the past few decades has been the 1-2-4-formula. That is one part added CHO (D.M., syrup or sugar) to two parts EVP milk to four parts water. The percentages in this type of formula are 15 per cent of calories from protein, 39 per cent from fat and 46 per cent from CHO. Advocates of the high CHO formula believe that about 50 per cent of the calories should come from CHO.[1] They point out that:

1. CHO is the most readily assimilable source of energy;
2. CHO promotes normal fat metabolism and tends to prevent the development of ketosis during illness;
3. CHO has definite protein sparing action and
4. CHO promotes normal water balance when used in proper amounts.

It has been suggested that since the electrolyte content of the formula comes from milk, only by decreasing the milk content and adding CHO to make up for the lost calories will the amount of electrolyte in the formula be decreased. Formulas high in electrolyte favor hyperelectrolytemia which may reduce the margin of safety against dehydration[2,3] (work reported on premature infants in whom concentrating power of kidney was not developed).

Adequate protein in the formula is known to be necessary for the building of body tissue. It has long been the belief that cow's milk protein requires modification for proper digestion either by evaporating, boiling or drying.

In recent years there have been placed on the market prepared formulas containing heat sterilized evaporated milk with added carbohydrates requiring only dilution with water for preparation. The ratio of CHO to fat to protein in these milk preparations is equivalent to that in the 1-2-4 type formula discussed. These formulas have become very popular due to their ease of preparation.

Formula Without Added Carbohydrate: The feeding of an evaporated milk formula without added CHO is not a new concept. McCulloch in 1936[4] reported using this type feeding

and McMahon in 1939[5] published a report of over 2,000 infants fed a formula without adding CHO.

Evaporated milk is considered easier to digest than whole fresh milk due to the change in protein fraction during evaporation.

Proponents of the evaporated milk-type formula without added CHO point out that:

1. infants fed this formula have a moderate amount of subcutaneous fat which is evenly distributed;
2. they rarely regurgitate or vomit;
3. pylorospasm is not seen;
4. the stools of these infants are uniform and soft and not constipated, and
5. the babies appear alert and responsive.

The CHO requirements are met adequately by the content of lactose in cow's milk, by the amount of dextrose which is formed during protein metabolism, and by further use of available fats to satisfy caloric needs rather than for storage as fat.

It has been suggested that the harmful effects of a diet high in CHO on growth, hemopoeisis, metabolism of bone and teeth, the control of body weight and poor resistance to infection which are noted in small children, might apply as well in infants.

Some investigators[2] have commented that the large increase in renal solute, which occurs when evaporated milk without added CHO is used, may not cause difficulties in normal times but decreases the margin of safety against dehydration when the infant is ill. However, an increase in water intake during an illness or the practice of "forcing fluids" would seem, to this writer, to correct this situation.

Purpose and Method of Investigation

In this investigation we attempted to evaluate and compare by strictly clinical observation the effects of three different types of formulas on infants *from birth through five months of age.* The study was carried out entirely in the physician's office through routine monthly visits and general pediatric care during time of illness. The recording and examination of all the infants were carried out by the same physician.

The first group of 50 infants was placed on a *1-2-4 type formula* using a prepared milk

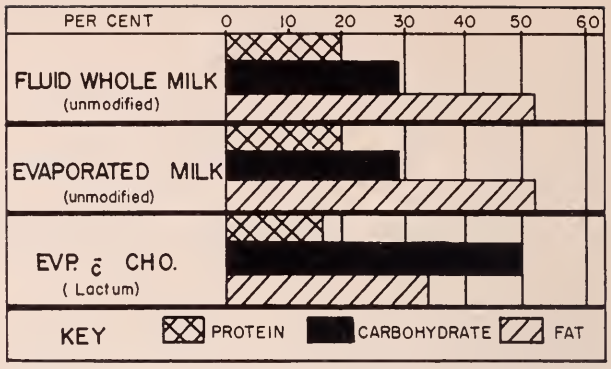


FIGURE 1. Per cent calories contributed by protein, carbohydrate, and fat.

(Lactum®), requiring only dilution with equal parts of water. This proprietary milk was chosen because of its ease of preparation, comparable to the other formulas investigated, which would not tend to discourage the mother from its use. The CHO in this case was from dextro-maltose but could as well have been from syrup or added sugar.

The second 50 infants were placed on a *formula of equal parts of EVP and water without any added carbohydrate.* The mother was instructed in this case to use either Pet or Carnation milk and after sterilizing the bottles to pour equal amounts of milk and boiled water into each bottle.

The third group of 50 infants were started on *fresh undiluted homogenized dairy milk without added carbohydrate* as soon as they left the hospital nursery. In this case the mother was instructed to pour the homogenized milk directly from the dairy bottle into the sterile nursing bottle when ready to be fed without further preparation except warming.

Figure 1 compares the 3 different formulas used as to the percentage of calories in each coming from protein, CHO and fat. The main difference is the 50 per cent of calories from CHO in the CHO added-milk as compared to 29 per cent from CHO in the straight cow's milk preparations.

The mother of each infant followed was similarly instructed in infant feeding before leaving the hospital. The salient features of these instructions were as follows:

1. Feed your child in an upright, sitting position.
2. Nurse the child on demand and if the feedings become too close together, stall him off with water.

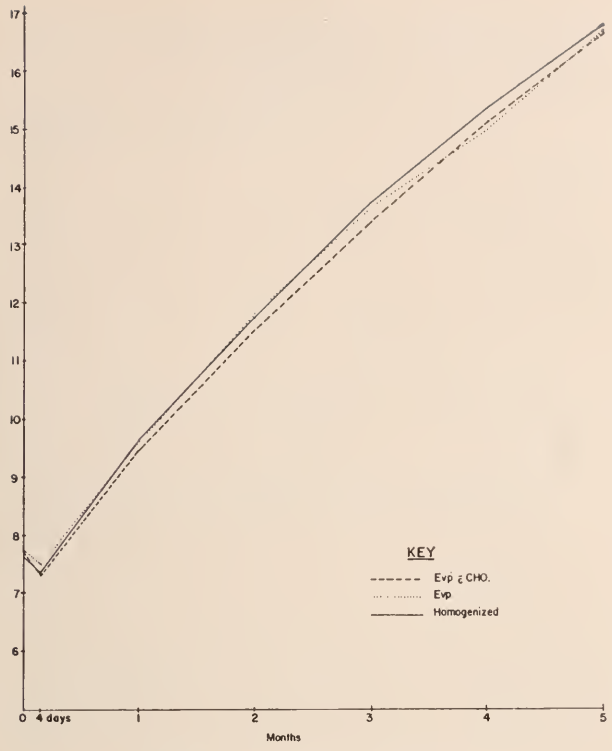


FIGURE 2. Average weight gain.

3. Give him all the milk he wants whether it be 2 ounces or 5 ounces.

4. Baby should need only milk his first month.

5. Bring your child to the doctor's office at one month of age for his first check-up.

Each infant in the three groups was maintained on the same feeding schedule for the first five months except for the variation in formula. The feeding schedule used is recorded in Table 1.

Recording

To attempt to evaluate clinically the progress of the 50 babies in each group we recorded the following:

1. Monthly weights (See Fig. 2);

2. Illnesses requiring medication (usually of the URI type);

3. Number of phone calls received concerning the infant regardless of reason;

4. Number of rashes — all types except diaper rash;

5. Incidence of "colic" — interpreted here as meaning those episodes about 10 minutes after a feeding when the infant will start crying, occasionally regurgitates and pulls up his legs as if having abdominal cramps;

6. Number of infants regurgitating;

7. Difficulty with stools either loose or constipated; and

8. Number changing formula whether due to rash, regurgitation, colic, allergy or mother (See Table 2).

Interpretation of Results

The weight gain and rate of growth of infants in each group during the first five months of age were almost identical.

There was a slightly higher percentage of treated illnesses in the homogenized milk group.

Rashes of all types were more common in the infants fed the high CHO formula. The incidence of colic was also greater in this group. Regurgitation was not a great factor in any of the infants which we believe to be attributed more to proper feeding technique than to type of formula used.

Bowel problems were also rare; however, no incidence of loose stools were noted in those infants fed homogenized milk while constipation was more of a factor with this formula. Neither cathartics nor stool softeners were required in any incidence. The constipation could be adequately handled by dietary measures.

Formula changes were not common but a much higher percentage of those on high CHO formula were changed than in the other two groups. The expense and ease of preparation were the principle reasons for mother changing the formula without the doctor's advice or recommendation.

Conclusions

1. Clinically CHO is not a necessary addition to formula for proper growth and development.

2. Cow's evaporated milk and water formula prepared in equal amounts without added CHO is a very satisfactory formula.

3. Cow's homogenized milk from a reliable dairy is also an adequate formula for infants. With this type feeding one can expect fewer skin rashes, less "colic" and a feeding readily accepted by mother which rarely must be altered. Firm stools may occasionally occur but can be readily controlled by dietary measures.

The writer realizes that CHO, as solid, is

Table 1.
Feeding Schedule

1st Month, Started:
a. Vitamins — Poly-Vi-Sol®, 0.3 cc./d.
b. Cereal — b.i.d.
2nd Month:
a. Vegetables
b. Fruit — 1 week later
3rd Month:
a. Three solid feedings a day
b. Vitamins — Poly-Vi-Sol®, 0.6 cc./d.
c. Start DPT and polio series
4th Month:
a. Egg yolk
b. Meat
c. All other prepared strained foods

Table 2.
Recorded Data From 50 Babies Studied in Each Group

	EVP.ēCHO.	EVP.	HOMO.
Illnesses			
(Most required medication)	33	29	38
Phone Calls	44	40	56
Rashes			
(All types except diaper)	19	10	11
"Colic"	11	8	6
Received medication	8	5	4
Formula change total:	14	7	2
Due to:			
1. Rash	2	0	0
2. Regurgitation	1	2	0
3. "Colic"	2	0	0
4. Allergy	1	1	0
5. Mother	4	3	1
6. Miscellaneous	4	1	1

introduced into the baby's diet early in the type of feeding program used in this investigation. However, it is felt that this early introduction of solid foods at one month of age is a common practice carried out by most physicians and one that is well tolerated by the infant. This would only tend to substantiate our conclusion that a formula high in CHO is not necessary.

The concern of some investigators regarding the larger electrolyte content and consequential renal solute in undiluted cow's milk would not appear to be a problem in the full term infant even in time of illness if the accepted practice of reducing solid intake and forcing clear fluids is observed.

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Reactions to Infusions

A larger control series will be required to determine whether properly prepared 50 per cent dextrose solutions without hydrocortisone may be given without venous trauma if the precautions described in this study are taken. Spencer and Beal reported that phlebitis was uncommon following infusion of 25 per cent dextrose plus 5 per cent alcohol in water solutions through a 22-gauge needle carefully placed in a vein. They suggested that perhaps the hazard of phlebitis due to infusions of hypertonic dextrose solutions has been overemphasized in the past. However, the absence of significant local reaction to accidental subcutaneous infiltration of the 50 per cent dextrose solutions with hydrocortisone is consistent with the anticipated anti-inflammatory properties of the steroid. It is in striking contrast to the local redness and soreness following subcutaneous infiltration of other solutions without hydrocortisone. The failure of the steroid to reduce the incidence of phlebitis and thrombosis following infusions of more than 24 and 48 hours' duration is not surprising. Under these conditions, the time-intensity factor probably far exceeds the physiologic-pharmacologic potential of the hydrocortisone. *Raymond E. Weston, M.D., and S. Jerome Port, M.D. Intravenous Nutrition. California Med., January 1961.*



New Senior Citizen Blue Shield Program to be Introduced by Special Drive in Illinois

The new broad-benefit Senior Citizens Medical-Surgical Plan . . . which the Illinois State Medical Society has worked to develop in cooperation with Blue Shield will be offered to people throughout Illinois, who are over 65, along with Blue Cross in a special campaign between October 15 and October 30th.

It will be supported by a newspaper, radio and television advertising campaign across the State. On the national level there will be advertising in LIFE, LOOK, SATURDAY EVENING POST, TIME and NEWSWEEK magazines.

The spotlight of public and political attention has recently been focused on health care for the aged, and we hope that every physician will support this new Blue Shield Senior Citizen program which is a positive approach that can help to solve the problem of health care of the aged and preserve the voluntary system of health care.

Over 7,000 physicians in Illinois already have signed Participating Physician's Agreements to support this program and to accept the allowances of this program as PAYMENT-IN-FULL for individuals with incomes not to exceed $2,500 and for couples with a combined income which does not exceed $4,000. For those with larger incomes the allowances provided by this Senior Citizen Blue Shield Plan will be paid toward the physician's usual fees.

Thus, this new program retains free choice of physician and offers paid-in-full benefits to older people with limited incomes who really need them.

This new Senior Citizen Blue Shield Plan gives benefits for surgery either in or out of the hospital. There are benefits for medical care in the hospital for up to 70 daily visits per admission, and for 13 additional visits of the doctor to see the patient in a Skilled Nursing Facility. There are no special good health requirements for anyone over 65 to join this Senior Citizen Plan.

In addition to the basic Over-65 Hospital Plan being offered by Blue Cross, a new SENIOR CITIZEN RIDER is also being made available for those who wish a broader-benefit hospital plan.

Under this Rider hospital benefits are being increased from 30 days to 70 days per hospital confinement for the care of all conditions, except mental conditions and pulmonary tuberculosis . . . which are limited to 30 days per 12-month period.

Private room benefits also are being increased from $10 a day to an allowance equal to the most common semi-private room rate charged by the hospital.

Entirely new benefits added by this Blue Cross rider include care in a contracting Skilled Nursing Facility . . . within 14 days of discharge from a hospital. There are also benefits for Visiting Nurse Service when available in the community and the Visiting Nurse Association has a contract with the Plan or a Plan hospital.

Executive Meeting of the Advisory Committee to the Illinois Public Aid Commission

September 15, 1962

A special meeting of the Advisory Committee was called by the Chairman, on a motion of the Committee, to consider problems of professional policy in relation to principles of the program of the Illinois Public Aid Commission. Only one member of the Committee was absent.

In consideration of the recent publicity given to highly paid physicians providing professional service, two crucial observations were made and unanimously concurred in: first, that appropriate consideration of the entire program shows that the service provided by these physicians is needed and that no evidence of fraudulent intent can be demonstrated; second, that it is unsatisfactory and totally inadequate for lay investigators to attempt an evaluation of professional services. It was moved and adopted that the Committee would not give consideration to any reports submitted by these investigators concerning professional practices.

The Chairman of the Cook County Committee discussed the desirability of professional surveillance under the Medical Director by Physician Co-ordinators. The Committee recommends to the Board of Trustees that it urge the Illinois Public Aid Commission to appropriate funds for this purpose and consult the Illinois State Medical Society in the selection of adequately trained physicians on a full or part-time basis.

The Committee re-affirmed the principle of representation at the meetings of the Commission when medical matters are considered and recommends to the Board of Trustees concurrence.

Discussion included the cost of doing business as a physician and the desirability of more general distribution of this information. Some of the members of the Committee have suggested that firm criteria are needed to determine the quality of practice. Should physician co-ordinators be employed some standards will be needed.

In order to implement the directive of the Meeting of the House of Delegates, May, 1962, that the membership should be more fully informed of IPAC activities, the Committee recommends to the Board of Trustees that the Chairman's report to the Board be printed in the Journal.

William H. Whiting, M.D., *Chairman*
Advisory Committee to the
Illinois Public Aid Commission



Available Literature

The following is a current list of publications available through several of the divisions of the Illinois State Medical Society which are available without charge to the membership. These publications cover a wide variety of subjects, all directed toward helping the Illinois physician in his medical practice. You are welcome to order as many of these materials as you require using the coupon below.

***Indicate quantity on the line preceding description**

DIVISION OF MEDICAL SERVICES AND ECONOMIC RESEARCH

1____**Kerr-Mills Medical Assistance in Illinois** — including a list of the County Departments of Public Aid

2____**10 Significant Facts About the King-Anderson Bill-RH 4222**

3____**Reducing 'Paperwork' Through Simplified Claim Forms for Health Insurance**

4____**Preliminary Relative Value Study** — provides a useful guide to individual physicians for pricing services.

DIVISION OF LEGISLATIVE ACTIVITIES

The following are reprints of articles from IMJ and other publications.

5____**Interprofessional Code for Physicians and Lawyers in Illinois**

6____**Illinois Validates Consent of Certain Minors to Surgical Procedures**

7____**Now Disclosures Made to the Physician are Privileged**

8____**The Malpractice Suit and You**

9____**The Physician's Lien** — provides background information and a suitable form to follow

10____**Now You Can Will Your Body to Medical Research**

11____**Professional Associations Now Authorized in Illinois**

12____**Recent Law Makes Tax-Deductible Pensions Available to Illinois Physicians**

13____**Tax Benefits Available Under New Illinois Legislation**

14____**Record of Tissue Committee and Research Projects are Confidential** — contains a copy of the law

15____**Should Physicians be Covered Under Social Security** — analyzes pros and cons of physician coverage

16____**Thalidomide, the Finkbine Case and Abortion** — discusses Illinois legislation on abortion

17____**Illinois Legislative Directory** — A key to the legislative makeup

18____**Legislative Manual** — outlines the organizational setup of ISMS and lists the functions of the county society's legislative committee

Name _____

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Mail this coupon to: The Illinois Medical Journal, 360 North Michigan, Chicago 1, Illinois

Surgical Brief

Reconstructive Surgery for External Nasal Deformities

A Discourse for Family Physicians

Hugh A. Johnson, M.S., M.D., *Chicago*

"As plain as the nose on your face" was probably a cliché long before Shakespeare; it still points out the importance given this one facial feature. I might disagree, nevertheless it seems true, that physical attractiveness has become the most desirable female trait. If some unfortunate girl is born with an unsightly nose, her lack of beauty is emphasized by every medium of our inescapable advertising. A man can have an unusually large nose and it merely is spoken of as manly, noble, or a nose of character; often it can be turned into an asset. The girl with an unsightly nose will do almost anything to change it; suffer through any operation; and make any sacrifice in the hope of improvement. In incapable hands the attempt at improvement can be a tragedy. If properly done such a patient can be the most grateful.

As any operation, a nasal plastic procedure is best done under the ideal conditions of the surgical theatre. Every patient should have a thorough examination by the referring doctor. My patients are admitted in the mid-morning of the day of the operation in order to avoid a night of apprehension in a strange bed and often a regrettable noisy situation. I start my surgery at 1:00 p.m. when I have the office problems behind me and I can feel no pressure of this awaiting me, nor the pressure of another surgeon to follow with some more urgent or serious problem. A good reconstructive operation cannot be a hurried, unplanned thing. A long-acting tranquilizer (Compazine® Spansule®) is given at admission. A pleasant, light lunch is followed by a minimum dose of 3 grains (192 mg.) of Seconal® and a suitable dose of Numorphan®. I have tried many premedicants but have found this combination most free of side effects. Quiet recorded music is used in the operating room. This has several effects; it produces an almost conditioned response (soft music — relaxation), it cuts down chatter among operating personnel (and hence lowers the airborne bacteria count), and it masks surgical suite noises (cries from the recovery room and dropped basins). The patient's nose is anesthetized with 4% Xylocaine and adrenalin topically and infiltration of the entire nasal pyramid with .5% Xylocaine with adrenalin. Most patients fall asleep during the procedure. Very few wish to stay in the hospital beyond noon the following day. A splint is worn for nine days, but full activity, even return to work, is allowed.

In about one-third of the cases it is necessary to do a submucous resection of the septum in order to improve the narrowed airway or to reposition the nose. This part of the operation is easily done through the same intranasal incisions. Healing is so good in this area that complications are rare and more annoying than serious.





FIGURE. 1. Front and side views prior to surgery.



FIGURE 2. Front and side views — final result.



Interferon

Harry B. Harding, M.D., *Evanston*

It has been known for a number of years that the inoculation of some plants with certain viruses creates within them a resistance to infection by certain other viruses.[1] Since this discovery, it was shown that neurotropic yellow fever virus, when inoculated intramuscularly in monkeys, produced no obvious disease while viscerotropic strains of the same virus were almost 100% fatal. On the other hand, if one first infected a monkey with the neurotropic strain, and subsequently inoculated that animal with the viscerotropic yellow fever virus, the animal was refractory to the previously tested infectious agent.[2] It was found, moreover, that this protective effect occurred before antibodies could be produced by the host in response to the neurotropic strain of virus.[3] Inoculations of the neurotropic virus could be made either shortly prior to, simultaneously, or twenty hours subsequent to the injection of a viscerotropic strain without producing infection in the animal. This finding was called the "interference phenomenon."

Concerning this phenomenon, Horsfall (1947) stated that "Although the 'interference phenomenon' is now well known, it clearly does not occur with all combinations of viruses and its mechanism is not fully understood. The phenomenon is perhaps just another expression of the supreme summit of parasitism so beautifully exhibited in the intimate association of viruses with their host cells."[4] It was postulated later that the interfering virus pre-empted the receptor sites on host cells which otherwise would have allowed the entrance of the other virus in the combination.[5]

Isaacs[6], in 1957, changed the world's point of view regarding the viral interference phenomenon. He showed that inactivated influenza virus, when inoculated into chick chorioallantoic tissue, interacts with this tissue to produce a soluble by-product that will inhibit the growth of active influenza virus and other related viruses (myxoviruses) in chorioallantoic tissue. In order to accomplish this, the soluble by-product of the first interaction is separated from all viral or cell components. It is then added to fresh chick chorioallantoic tissue cultures and the mixture incubated at 37°C for 3 hours. Subsequently, the cells are washed free of any soluble materials. When such cells are suspended in fresh growth medium and active virus added, the treated cells will no longer support the multiplication of influenza virus to the same extent as do similarly prepared but untreated chorioallantoic cells. The substance which brings about this inhibition of viral growth has become known as INTERFERON.

Interferon may be defined as "a class of proteins usually produced by a cell that has been acted upon by inactive virus, active virus, or a viral component; which, when separated from both virus and cell and used to treat other cells, renders them resistant to viral infection." It is thus noted that recent investigation has broadened our knowledge concerning interferon to include not only inactive virus but viral components and active virus, also, as progenitors of this substance.[7] We now know, furthermore, that interferons can be produced in many different animal tissue cells as well as in certain cells of human origin.[8] Many viruses other than the influenzas, including those of measles, mouse polyoma, poliomyelitis, certain

Clinical Microbiologist, Evanston Hospital Association, Evanston, Illinois, Associate Professor of Microbiology, Northwestern University Medical School.

encephalitides, vesicular stomatitis of horses, foot and mouth disease, mumps, and vaccinia, can cause the production of interferon.[9] The interferon thus formed will, in some instances, act only against the same virus which produced it. With other viral agents, the spectrum of inhibition of the interferon may be relatively broad. For example, Glasgow and Habel[10] have reported an interferon, produced by the interaction of vaccinia virus with primary mouse-embryo cell culture, which inhibits not only the growth of vaccinia, but also encephalomyocarditis, herpes simplex, esatern equine encephalomyelitis, vesicular stomatitis, and Sindbis viruses. It is interesting to note that primary cell cultures (i.e., those newly prepared from fresh tissue) produce more active interferon than do cells maintained in the laboratory by periodic passage over long periods of time.

Interferons possess other important properties:[11] a) they are species specific, in that those produced in the cells of an organ of a given animal species are similar to those produced from other organs of the same animal; b) the same virus may produce a second kind of interferon in the tissues of a different animal, although both interferons may inhibit the same virus; c) interferons themselves are antigenically inactive; d) the time during which tissue must be exposed to the interferon, to render it resistant to subsequent viral infection, varies considerably; e) the time during which such interferon-treated tissue remains resistant also varies from (3-5 days to 2-3 weeks); f) the interferon cannot be inactivated by the antiserum prepared against the virus which was used to produce that interferon.

The most startling and equally encouraging fact to date, regarding the investigation of interferons, is that they may serve as a means to get at the therapy of viral diseases.

For a number of years, many workers have been searching for a drug or antibiotic which would act as decisively against viruses as antibiotics have against bacteria. Several approaches have been made: a) By tedious trial of thousands of different substances, without rationale, in the hope of finding eventually an antiviral agent which also would be compatible to the host. b) Other workers have attempted to develop antimetabolites which could be injected into the host where they (instead of normal metabolites) would be taken up by the host cells, thus rendering the cells incapable of synthesizing virus.

The latter approach has been very difficult because no one has discovered an antimetabolite of sufficient promise which would not cause irreparable damage, also, to the host cells.

The advent of interferon has aroused new hope that a possible antiviral therapeutic substance may yet be prepared. The main advantages of the interferons are their relative lack of cellular toxicity, their poor antigenicity, their remarkable stability, and the broad spectrum of antiviral activity possessed by many of them. To date, the main disadvantage found for these substances is the relatively low level of antiviral potency shown by them. This has been partially overcome by the use of concentration and purification processes, in some instances. Perhaps a way may be discovered to synthesize them and alter the molecule so that they will possess a greater potency.

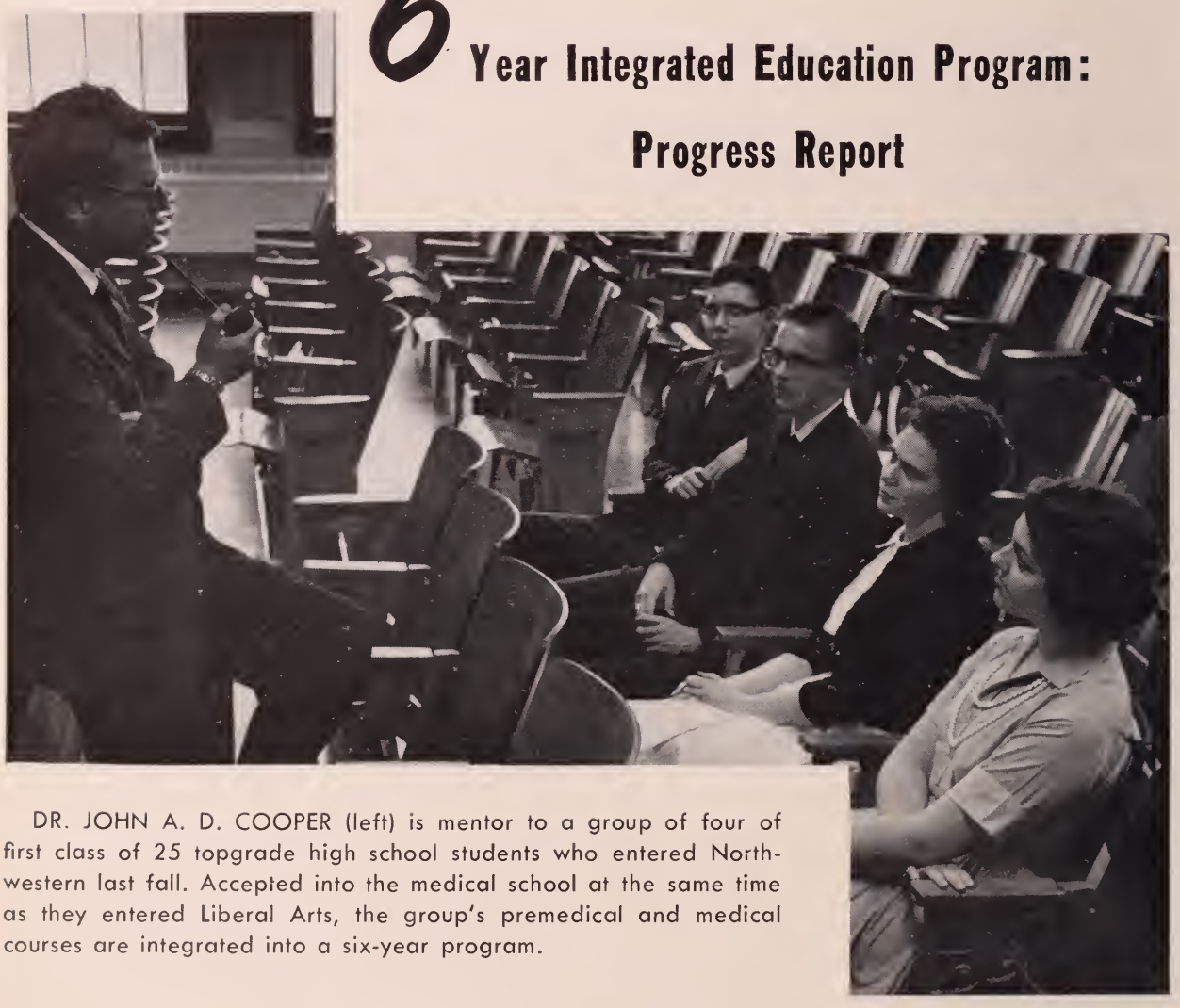
The results of Isaacs'[12] recent experiments may indicate the present situation regarding these substances. This investigator studied 36 volunteers who had no previous history of smallpox or vaccination with vaccinia. As the sites for inoculation, he chose the deltoid areas of both arms. Into the right side he first inoculated vaccinia interferon in all 36 persons. No pretreatment of the left side was made. All subjects then were vaccinated in both deltoid areas. Twenty-four of those investigated had single takes all on the left side), 8 had double takes, while 4 had no takes on either side.

From the results of this study, it is seen that much remains to be done before interferon can become the effective antiviral drug everyone is hoping will be developed.

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N.U.'s 6 Year Integrated Education Program: Progress Report



DR. JOHN A. D. COOPER (left) is mentor to a group of four of first class of 25 topgrade high school students who entered Northwestern last fall. Accepted into the medical school at the same time as they entered Liberal Arts, the group's premedical and medical courses are integrated into a six-year program.

The best promoters of the six-year integrated education program at Northwestern University Medical School may be those who have taken the course.

Members of the first class of 25, who entered the course in September, 1961, were asked to evaluate their studies in the light of their experience, and most of them said they would recommend the program to other "gifted and highly motivated high school students" because of the opportunities it affords.

The results of the survey, and of the group's final grades for their first year were announced by Dr. John A. D. Cooper, associate dean of the medical school and director of the program.

Only one student was dropped during the first year. Another student shifted to the regular three-year premedical program, without loss of time. One student has decided to work toward a graduate degree in physiology instead of toward an M.D. degree. Two students are "irregular" and complete additional work during the summer quarter before resum-

(continued on page 372)



As seniors one day, these students will perform initial examinations, recommend treatment, and follow progress of patients under guidance of clinic doctors.

(continued from page 370)

ing regular studies in the second year.

Of the average pre-med freshman class of 185, only 50 or 60 enter their junior year.

Northwestern's new course is designed to challenge the exceptionally gifted high school graduate. It has been variously described as "integrated" (that is, the pre-medical and medical courses are combined into a single program); "accelerated" (since it is completed in six years, instead of the seven or eight usually needed for an M.D. degree); and "experimental" (because the project is initially limited to a small group of carefully selected students).

Approximately 300 applications are received each year, from which the class of 25 is chosen. Selection is based on ability and seriousness of purpose, academic performance in high school, and College Entrance Examination Board scores. The applicants are also evaluated for their leadership qualities, well-rounded personality and maturity, through recommendations from their teachers, the judgment of their peers (e.g. election to class offices, positions of responsibility on school papers or honor societies), and personal interviews by the university's Office of Admission and Medical School representatives.

The students are admitted to the medical school at the same time as they enter the College of Liberal Arts; generally, a student is not considered by a medical school until he has completed his pre-medical course. The "guarantee" of a place in medicine, it has been found, reduces the tension and frustration usually found as the pre-med students scramble for the few prized medical school openings.

During their two years on the Evanston campus, the pre-med students spend approximately half time in a specially arranged science sequence involving physics, mathematics, chemistry and biology. The other half of their time is spent on elective courses in the humatities, arts or social sciences.

"The special science sequence has not been tailored narrowly for those interested in medicine," Dr. Cooper emphasized. "It furnishes an excellent introduction to the sciences for talented students whose ultimate interests are in physics, chemistry or biology."

In addition to the formal classes, dinner meetings were arranged, at which Medical School faculty members discussed topics from the history of medicine or recent developments in the medical sciences. These assisted the student in relating short-term goals to his ultimate objective of becoming a physician.

Twelve of the first-year students in the integrated program, and 10 freshmen medical students participated in a special seminar given on Saturday mornings by medical school faculty members. Participation and attendance were voluntary; no examinations were scheduled, and no grades given.

"An attempt was made to avoid treating scientific method in the usual philosophical fashion. Instead, discussions were generally limited to what scientists do, why and how they do it, and how this kind of activity is related to the more familiar daily activities of people," Dr. Cooper said.

"Discussion was generally lively, rarely restricted to the point of issue, and never completely free from emotional overtone."

Attendance was usually from 18 to 24 students, without about one-fifth of the class taking no part in the discussion but content to listen, attending regularly and apparently benefitting from the seminars.

All but one of the first-year students who participated in these seminars spent the summer in a research laboratory at Northwestern, and continued to hold weekly sessions, where they presented and discussed their own research and pertinent published work of others.

The questionnaire used in the student survey covered a wide variety of academic and social questions, and was answered by 20 of the 24 students who received it. Among the questions and answers:

—Do you think that you and your colleagues in the special program have a greater identification with the medical profession than the regular pre-medical students have, as freshmen? Yes, 18; undecided, 2.

—What was the attitude of your parents toward your participation in the program when you were chosen? Only one had "mixed feelings"—proud at their child having been chosen, but worried about the non-academic aspects of the course.

—Did you find the dinner meetings with Medical School faculty members profitable? Yes, 19; No. 1.

—Did you have time for participation in extra-curricular activities? Yes, 16; No, 1. Eight took part in fraternity, sorority and social club activities; eight in intramural activities; and others in a variety of programs such as music, religion, model United Nations and student government. However, nine said they felt isolated, in some way, from other undergraduates because of their participation in the integrated program.

—In comparison with the science courses available to regular pre-med students, do you think that your special science sequence is superior? Yes, 16; undecided, 4. However, six said that other class work suffered "because of time and energy spent on the integrated science courses."

—Do you feel the program has brought undue influence in preventing you from considering other careers than medicine? No, 17; Yes, 2. Seven said they had been tempted to leave the program temporarily, to pursue additional work at the College of Liberal Arts.

—In your college work, have you been able to keep up as material has been presented? Yes, 16; No, 2; undecided, 2.

—How do you plan to spend the summer of 1962? Research at N.U.M.S., 10; non-scientific work, 5; hospital work, 2; others, 3.

The students were not uncritical of the course. Some of their constructive suggestions have already been used by the faculty in revisions for the next incoming class. One student felt the faculty has been overly solicitous: "The students may acquire an attitude of 'all take and no give' and tend to lack an appreciation of the opportunities provided."

"I am satisfied with the program," concluded another. "It has done all it promised and considerably more — dinners, seminars, summer labs. The instruction has been tops and I'm sure each student feels that all concerned with the program are actually interested in how he is doing, and are ready with help and advice if he isn't doing well.

"I think that any complaints which may come in from my colleagues will not be that the program has failed to live up to its promise."

Anesthesia—Looking Back

Muscle relaxants, with light planes of surgical anesthesia, have been used in clinical anesthesia for 19 years. Before the advent of these drugs, the anesthesiologist gave the anesthetic, with only enough oxygen admixed to keep the patient alive; today he gives relaxants, oxygen, and such other therapy as needed to maintain homeostasis in the operating room, with only enough anesthetic to keep the patient from consciously recalling the pain of operation. When he must artificially respire the paralyzed individual, we have lost quality and quantity of spontaneous ventilation as indications of his condition; with the onset of curarization, the ability of the patient to react visibly when hurt has also gone. To reduce bleeding at the operative site, or perhaps to control noxious reflexes, paralysis of the autonomic nervous system is accomplished by the use of a ganglioplegic drug; thereafter one can no longer depend on blood pressure as a valid indication of the patient's condition. Often under conditions of ganglionic blockage, and as the rule during hypothermia and/or cardiopulmonary bypass, the peripheral pulse (if any can be noted) as well as the blood pressure (if any can be noted) must be monitored by electronic means. There is a not entirely humorous resemblance between the patient whose respiratory and autonomic nervous systems have been paralyzed, and the heart-lung preparation of the physiology laboratory. *Sanford Cobb, M.D. Editorial. Muscle Relaxants and Pain Perception. Anesthesiology. March-April 1961.*

The German Medical Society of Chicago
1897 to the Present*

Eugene F. Lutterbeck, M.D., and H. L. Widenhorn, M.D., *Chicago*

The German Medical Society From 1918 to 1933

In 1919, the Society resumed its normal activities since the War had come to an end with the signing of an Armistice on November 11, 1918.

Some new and some old members assumed the Presidency during this time. Drs. Emil Ries, Gustav Schirmer and David Lieberthal served a second time as president, and Drs. Otto T. Freer, William F. Petersen, Richard R. Jaffe, and Ernst Pribram each took active office for a two-year period. Meetings at the Atlantic Hotel were well attended, averaging 40 to 50 members. The proceedings were published in the *Muenchner Medizinischen Wochenschrift* (Munich Medical Journal).

Dr. William Petersen, President from 1926 to 1927, was Professor of Pathology at the University of Illinois and the author of numerous books, among them "The Patient and the Weather." Dr. Richard M. Jaffe, President from 1930-1931, came from the University of Vienna in 1922 to Chicago. He was Professor of Pathology at Rush Medical School and the University of Illinois. He served as Director of Pathology at the Cook County Hospital from 1928 to his death in 1937, was an international authority in his field, a brilliant teacher, author of many scientific articles, particularly on the reticulo-endothelial system.

The membership grew to a maximum of 140 during these years. Most prominent speakers were Dr. Alexander Maximoff, Professor of Anatomy at the University of Chicago, who discussed "New Methods of Culturing Tissues." Dr. Hans Reese, Professor of Neurology, who spoke on "Modern Treatment of Syphilis," and Professor Albert Bachem, of the University of Illinois, who spoke on "The Biological Effects of Roentgen and Radium Rays."

Prominent speakers from abroad addressed the Society again in the 1920's. Professor Heinrich Finkelstein, Berlin, the famous Pediatrician came to Chicago in 1924 to speak on the "Health Situation of German Children During and After the War." Professor Ludwig Aschoff, from the University of Freiburg, spoke on "Ovulation and Menstruation" the same year.

In 1926, Dr. Carl Zell, a graduate from the University of Munich, became Secretary of the Society, a position which he faithfully conducted until his death in 1951.

A special committee of the Society was organized in 1926 to increase the number of German speaking Professors from abroad. They succeeded in engaging Professor Oscar Gans from Heidelberg who spoke on the "Hydrogen Concentration of the Healthy and Diseased Skin," and Professor Franz M. Groedel, from Frankfurt, who discussed "Roentgen Examination of the Heart." Other guest speakers were the Professors Ernst Fuchs from Vienna, Fritz Wittels, Vienna, Magnus Hirschfeld, Berlin, and Franz von Groer, Lemberg.

The yearly social events of the Society were held in the various hotels in Chicago with the presence of the German speaking Consuls and their Ladies, the German, Austrian and Swiss Consul Generals.

Some of the members received high honors for their work in Chicago. Dr. Otto L. Schmidt was the recipient of the "German Ring" on

*Second of two parts, concluded in this issue.

June 24, 1928 by the "Deutsches Auslandinstitut" ("Institute for German Affairs Abroad") in Stuttgart in recognition of his life-time work. The accompanying citation read: "In his profession, he was a perfect example of a dutiful physician, who performed tirelessly his obligations to suffering mankind. He has never forgotten his debt to the German spirit and science of his forefathers."

Drs. Otto L. Schmidt and Jacques Holinger were elected to Honorary Membership of the German Medical Society on December 6, 1952 in recognition of their outstanding work as physicians, teachers and devoted members of the Society.

1933 To The Present

With the rise of Hitler in Germany, another new wave of German speaking physicians came to the United States.

Dr. Ernst Pribram, Professor of Pathology of the University of Illinois, took office as President in 1933. In a meeting on September 19, 1933, it was concluded that the Society should be a scientific body without getting involved in any political matters. This policy was strictly adhered to, and the members were informed that the Society would never tolerate any controversy over racial, religious or political questions, and that the principles of a strictly academic organization would be preserved and continued. There were members who desired to change the name of the Society; however, the majority agreed with Dr. W. H. O. Hoffmann, who declared that this should not be necessary. The Society was in existence even at a time when the United States was at war with Germany.* The German Medical Society of Chicago felt there was no reason to change the name of the organization merely because Nazi Germany might not approve of the fact that members were welcome regardless of their religious, racial or national background. All

*It should be pointed out, that the "German Medical Society of New York", which was founded in 1860 took a somewhat different stand in this matter. The name of this Soeiety was changed to the "Rudolf Virchow Medical Society in the City of New York" in 1939, and 2 years later the English language became the official one for its meetings in order to include the Ameriean-born colleagues.



RICHARD B. JAFFE (1888-1937) Vienna 1912. President of the German Medical Society of Chicago 1930-1931; Professor of Pathology at Rush Medical School and Director of Pathology of Cook County Hospital 1928-1937.

these views were shared by the succeeding officers, particularly by those who faithfully served the Society during these trying years as President: Drs. W. H. O. Hoffmann (1933-1934); Ferdinand Seidler (1935-1936); Johann Siebel (1937-1939); and Kurt W. Ossendorff (1939-1941).

Regular scientific meetings were held at the Bismarck and the Knickerbocker Hotels in Chicago.

Members of the Society were most active in the scientific meetings, because few visitors from abroad were able to come to Chicago. Some of the outstanding speakers in the field of surgery were Professor Max Thorek, who reported in 1935 on "Electrosurgery of the Gallbladder;" Dr. Rudolf Schindler, Professor of Surgery, University of Chicago on the "New Technique of Gastroscopy;" and Dr. H. L. Widenhorn, Professor of Surgery, Loyola University on the "Surgery of the Colon" in 1941. Among the few visitors from abroad were Professor Herman Rinke of the University of Heidelberg in 1933, and Dr. Bernhardt Dattner of Vienna in 1936.

The field of radiology was well represented by Professor Max Hartung, Chicago, who addressed the Society on "Roentgen Examination of the Gallbladder" in 1934; Professor Ernst Pohle, Madison, Wisconsin, on "Indications and Contraindications of Radiation Therapy" in



ALBERT LUCKHARDT (1878-1951) Freiburg 1901. President of the German Medical Society of Chicago 1917-1945. Professor of Neurology, Chicago Policlinics.



ARNO B. LUCKHARDT (1885-1957) Rush Medical School 1912. Professor of Physiology, University of Chicago. Honorary Member of the German Medical Society of Chicago. Introduced acetylene gas as an anesthetic in 1923.

1937, and Professor Erich Uhlmann, Director of the Tumor Clinic, Michael Reese Hospital, on "Problems of Modern Radiation Therapy" in 1938.

In 1936, the Society was particularly pleased to have the active participation of the second generation with Dr. Paul H. Holinger, son of Dr. Jacques Holinger. He spoke in his field of Otolaryngology on "Indications for Bronchoscopy."

In 1939, Professor Maurice Oppenheim, formerly of Vienna, discussed the "Difference in the Treatment of Skin Diseases between Vienna and Chicago."

In 1937, it was decided to move the monthly meeting place to the Schlaraffia Room of the Germania Club. The most active group of the Society were also members of the Schlaraffia and a driving force behind the scenes, such as Drs. George Dohrmann, Edward Hess, Albert Luckhardt, Paul Leden, Kurt W. Ossendorff, Heinrich Kobrak, Ernest J. Moyat and Carl Zell.

With the entrance of the United States in the war against the Axis powers in 1941, the German Medical Society was again forced to overcome great difficulties. Another attempt to change the name of the Society was unsuccessful. Officers and members again re-emphasized the strictly academic character of the Society.

The following members served as Presidents of the Society from 1941 to 1951; Drs. George Dohrmann, Albert Luckhardt, Edward F. Hess, Hans Nachtgall, and Frederick Hiller.

There was a drop in membership during these years, but due to the tactful leadership and the tolerance and respect for our scientific activities by our Chicago colleagues, the Society was grateful to be able to continue its scientific meetings even during the years of World War II.

On December 7, 1952, Dr. Arno Luckhardt (1885-1957), Professor of Physiology of the University of Chicago, member of the German Medical Society for many years, and world-known for his introduction of Acetylene gas as an anesthesia in 1923, was elected to Honorary Membership in recognition of his outstanding work as a scientist and teacher.

Up to the year 1951, most of the speakers were members of the Society or invited Chicago colleagues.

In the field of ophthalmology, many members and guests remember the interesting report which Professor Peter Kronfeld gave about his observations in China as a member of the Rockefeller Institute in Peking.

There was an emphasis on the Allied Sciences in these years. Professor Albert Bachem of the University of Illinois discussed in 1945 the "Philosophy of Biophysics." The 200th Anniversary of Johann Wolfgang von Goethe was celebrated in 1949 with an excellent address by Professor Arnold Bergstrasser, of the University of Chicago, in which he emphasized the important contributions of Goethe to the basic sciences of Medicine. The Society had the privilege to hear Dr. Karl Friedrich Freiherr von Weizsaecker, Professor of Physics at the University of Goettingen, in 1951, who gave

a brilliant talk on "The World Picture of Modern Physics and Biology."

In the field of anatomy, the Society had the great fortune to have Professor Friedrich Wassermann, the beloved teacher of a generation of young physicians of the University of Munich, as one of its distinguished members. He spoke in 1949 on the "Physiology and Pathology of the Connective Tissue."

In 1951, the Society lost two prominent and faithful members, Dr. Albert Luckhardt, Professor of Neurology at the Chicago Policlinics and President of the Society from 1917-1919, and again from 1943-1945. Dr. Luckhardt passed away on January 22, 1951. Dr. Carl Zell, faithful secretary of the Society for over 25 years, passed away on July 6, 1951.

Dr. Heinrich Kobrak, Professor of Otolaryngology of the University of Chicago, became President in 1951, and Dr. Eugene F. Lutterbeck, Professor of Radiology at the Cook County Graduate School of Medicine, Secretary. The following members served as Presidents: Drs. Heinrich Kobrak, (1951-1953); Paul H. Holinger, (1953-1955); Eugene F. Lutterbeck, (1955-1957); Ferdinand Seidler, (1957-1959); H. L. Widenhorn, (1959-1961) and Eugene F. Lutterbeck, (1961—).

Through Dr. Kobrak's initiative, the Society continued to progress. It was decided to retain German as the official language, with English as a second choice.

Mainly through the exchange program between the University of Chicago and the University of Frankfurt am Main in Germany, the Society had the good fortune to hear a large number of prominent speakers from abroad. It is impossible to give recognition to all in this paper.

The basic sciences were well represented by Professor Dr. Herman Hoepke, Department of Anatomy in Heidelberg, who discussed the question "Does the Body Defend Itself against Tumors" in 1955. Professor Kurt Felix, Department of Physiology of the University of Frankfurt, came to Chicago twice, in 1955 and again in 1957. The Society had the pleasure of hearing his excellent presentations on "The Physiology of the Liver" and the "Role of Peptides in Physiology and Pathology." Privatdozent Dr. Herbert Fischer, of Frankfurt, was also a visitor in 1957, and spoke to us on "Nonspecific Defense Mechanisms against Infections."

In pathology, we heard Privatdozent Dr. Otto Hug from the Max Planck Institute in Frankfurt on "Ultrasonics in Biology and Medicine." Recently, two prominent pharmacologists addressed the Society, Professor M. Friebel from Bonn about "Older and Newer Anti-Tussives," and Professor Werner Grab from Giessen, about "Modern Aspects of the Pathophysiology of the Thyroid Gland."

In the field of radiology, Professor Boris Rajewski, Frankfurt am Main, an international authority on Radiology, spoke about "Radiological Research in Present Germany" in 1954.

The Society was always keenly interested in Educational problems of the study of medicine. One of the most brilliant talks was given by Dr. Dallas B. Phemister, Professor of Surgery of the University of Chicago, who reported on his trip to Europe in 1951 on "Medical Problems in Post War Europe."

In 1956, Professor Percival Bailey discussed the "Medical Education in Europe and the United States," and in 1960, Dr. Dean F. Smiley, the Executive Director of the Educational Council for Foreign Medical Graduates, spoke about "Foreign Medical Graduates in United States Hospitals," a problem which has been of great concern particularly to immigrant or refugee physicians.

The Society was also interested in keeping the membership informed about the allied sciences. Dr. Paul Weiss, Professor of Zoology of the University of Chicago, a graduate of the University of Vienna, spoke in 1952 on the "Specificity of Growth Control."

In the same year, Dr. James Franck, Professor of Physical Chemistry at the University of Chicago, Nobel Prize Winner in 1925, and formerly the Chairman of the Department of Physics of the University of Goettingen, fascinated his audience with his talk on "The Influence of Light in Biology."

Dr. Franklin C. McLean, Professor of Physiology of the University of Chicago, in 1956 spoke on "Parathyroid Glands and Bone" (In German), a paper which he had prepared for a later meeting in Germany.

Even the field of History of Medicine was covered during the last few years by Professor

Ilza Veith of the University of Chicago, who presented an excellent talk on "Chinese Medicine and Its Influence Upon Medical Practice in Europe." Many remember well a lecture by Dr. Gernoth Rath, Professor of History of Medicine at the University of Bonn and at the University of Wisconsin, Madison, Wisconsin on "The Influence of Medicine on the Literature of the 19th Century," in which he pointed out how newer knowledge found place in the literary works of many poets and writers.

The surgeons were represented by Professor Lester Dragstedt of the University of Chicago, who discussed his studies on "The Physiology of Gastric Secretion and the Ulcer Problem," in 1952. Professor Charles B. Huggins, world famous for his cancer research, talked on the "Hormone Treatment of Cancer" in 1953.

The otolaryngologists were well represented by Professor Paul H. Holinger, University of Illinois, College of Medicine, who kept the members abreast of the latest developments in endoscopy, and Professor Hans von Leden, of Northwestern University, who reported on several occasions about his research work on the function of the larynx in health and disease.

Most outstanding in the field of Obstetrics were lectures by Professor Ernest J. Plotz, of the University of Chicago, on "Endocrinology in Pregnancy," and Professor George L. Wied on the "Significance of Exfoliative Cytology" in 1954.

In pediatrics, Professor H. P. G. Seckel spoke on various occasions about his research work in pediatric endocrinology.

There was always considerable interest in psychiatric subjects. It was a memorable event when Dr. Henry D. von Witzleben, Professor of Neuropsychiatry of the University of Illinois gave his farewell address to Chicago in March, 1953 on "The Sciences of Humanism as a Basis of Medical and Psychiatric Education." Professor Percival Bailey of the University of Illinois, spoke on various occasions discussing "The Relationship between Brain and Behavior" in 1957, and "The Visceral Brain" in 1960. He also gave a survey of the "Re-organization of Psychiatric Care in Ilinois in 1961.

In 1957, Dr. Eugene F. Lutterbeck, Professor of Radiology of the Cook County Graduate School of Medicine, received an invitation by the Government of the Federal Republic of Germany for a 4-week medical study tour of Western Germany and Berlin, and on his return he gave an extensive report to the Society.

A testimonial dinner was given on February 28, 1962, in which the German Consul General, Dr. Guenther Motz, presented the Officers Cross of the Order of Merit of the Federal Republic of Germany to Professor Percival Bailey, in recognition of his work as scientist and teacher, and in appreciation for his support of German scholars and science during his career.

Outlook For The Future

Today, the German Medical Society has a total membership of 120, 60% are graduates from German Universities, 18% of medical schools in the United States, 17% graduated from either Austrian, Hungarian and Swiss Universities or the German University of Prag, and the remaining 5% were educated in other European or non-European universities.

Over 60% of the members are taking an active part in teaching at the Chicago Medical School, Northwestern University Medical School, Stritch School of Medicine of Loyola University, University of Chicago School of Medicine, University of Illinois College of Medicine and the Cook County Graduate School of Medicine.

With the advance of modern traveling, the distance have become gradually smaller and the need of the knowledge of foreign languages greater. When it was more fashionable and rewarding in the old days for an American physician to go abroad, particularly to Germany, Austria and Switzerland, for postgraduate studies, this situation has been reversed shortly after World War II. Many teaching missions were sent from the New to the Old World, among them a considerable number of our own members who had the knowledge to teach German speaking students in German. European Universities have made remarkable progress during the last few years, recovering from the ravages of war and destruction, and it appears that a new desire has arisen to visit and learn from the universities of the Old World again.

The German Medical Society of Chicago is proud of its past history and the fact that it has

maintained its basic character and policy of an academic organization of German speaking physicians where, as Dr. William Wagner stated in 1857 "Medical Matters could be discussed in their native tongue among kindred spirits." The Society has been aware of its tradition and fully realizes that the ancient and highly respected medical faculties of Europe were our teachers. These universities have produced some of the greatest minds in the history of Biology and Medicine; they belong to our own spiritual heritage.

The Society has felt that it was its task to encourage the use and knowledge of scientific German in the field of medicine for its own progress, and for the benefit of American born colleagues. Its meetings have always been well attended as compared to other medical societies in the Chicago area.

The Society celebrated its 65th Birthday on May 26, 1962, at the Grand Ballroom of the Germania Club with an attendance of 250 members and guests. It was gratifying to have as speakers, the President of the Illinois State Medical Society, Dr. Edwin Hamilton and the President of the Chicago Medical Society, Dr. Morris Fishbein. There were delegations from all the other foreign speaking medical societies of Chicago; the Cuban Medical Society in Exile, the Bulgarian, Hellenic, Lithuanian, Polish Medical Societies, the Polish Medical Alliance and the Ukrainian Medical Society of Chicago. All these societies adhere to the custom of holding their meetings in their mother tongue. The German Medical Society of Chicago enjoyed this gala evening with the presence and greetings of the Consul Generals of the German Federal Republic, Austria and Switzerland.

The Society looks forward to a bright future with the help of the new generation of German speaking physicians, who are grateful to make their home in the New World, and with the assistance of our corresponding members and our visitors from abroad, all for the purpose of a better understanding and mutual respect for each other.

The Crucial Period Before Nov. 6 — What You Can Do

October 1, 1962

TO: Executive Secretaries
State and County Medical Societies

Only a short time remains before the November 6 general election; the time between now and then will be a crucial period for the future of the medical profession. The make-up of the House and Senate could well determine whether King-Anderson type legislation will be adopted or again rejected.

In those states and congressional districts where it is evident that health care for the aged will be an issue in the campaign for U. S. Senate and Congress, it is imperative that state and county medical societies step up their efforts to get the truth about this issue to the voters.

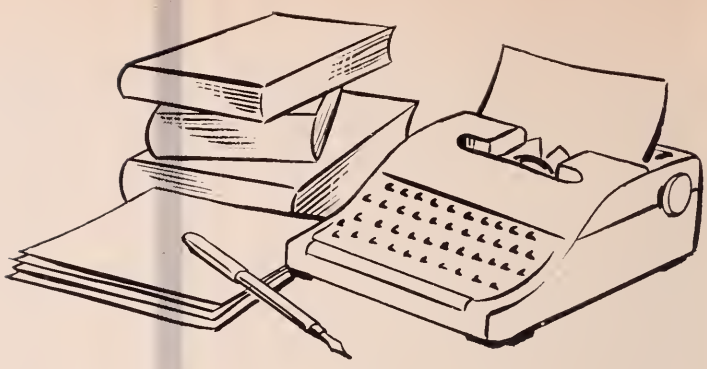
I urge all of you in areas where health care for the aged is an election issue to embark at once, if you have not already done so, on a campaign of truth by a vigorous program of newspaper advertising, letters to editors, radio and television programs, speeches, pamphlet distribution and any other activity that will be effective in getting our story to the voters. It has been demonstrated that when the people understand this issue they will oppose it.

In some areas it will be possible to generate favorable editorial comment through personal contact with editors.

Again, let me emphasize that the time to act is now.

Your tireless and dedicated work during the last year and a half won the battle for medicine in Congress. I know we can count on you in the next few weeks.

F. J. L. Blasingame, M.D.
Executive Vice President
American Medical Association



Editorials

ISMS MEDICAL BENEVOLENCE

Medical Benevolence in the ISMS is a real and humanitarian function. In a day when monetary values are a primary concern, there are physicians, and dependents of physicians whose financial "well-being" is at a low ebb. Because such exists, our astute predecessors in the ISMS thought it proper to make financial assistance available to those in need. Thus, the Medical Benevolence Committee was established approximately 20 years ago as a constitutional committee.

Many of the recipients of the committee funds are widows of ISMS physicians; elderly ISMS physicians; disabled ISMS physicians; and dependent children of deceased or disabled ISMS physicians who are still in the active educational age. Payments range from $40.00 per month to $100.00 per month and the number of recipients is 38. It is true, that this is not a great number, nor is it an adequate amount of money; yet these individuals are genuinely appreciative of this support.

The Medical Benevolence Committee has the authorized responsibility of reviewing new applications and the status of existing recipients. This review may take the form of acceptance or rejection of new applicants, discontinuance of existing recipients, decreasing or increasing payment of existing recipients. All of the above has to be done within a limited financial income and reserve. Applicants must submit a rather detailed financial statement. Those receiving monthly assistance will be required as of November 1, 1962, to submit an annual financial statement for review, so that any change in financial status can be recognized. All of the applicants and recipients and any information regarding them is held in the strictest confidence of the committee.

It was stated above that there is a limited financial income and reserve under which this committee functions. All of actual committee expense, such as meetings, mailings and administrative, are paid out of general funds. This means that *all* of the Benevolence income and reserve are used in payments to recipients. The annual income of the Benevolence Fund is as follows:

Membership Dues $2.00 per member	$18,000.00
Income from investments	2,315.84
Woman's Auxiliary to ISMS	5,374.03
	$25,689.87
Our expected assistance payments this year	32,558.38
Deficit	$6,868.51

It is expected that a deficit of $6,868.51 will exist as of December 31, 1962. This figure has been approximately the same since 1957 and 58. The Benevolence Committee may solicit subscriptions, donations, and legacies to add to the reserves, which in the long term could add substantially to the annual income. As one reviews the annual income, one is impressed with the regular contribution of the Woman's Auxiliary to the ISMS. Certainly this is of a great assistance and gratefully appreciated.

The function of Medical Benevolence is a gratifying function of the ISMS. All can have cause to reflect in a manner no less humble than our love for life, whether it be ours or our fellow man's. Some are in distress, financially or otherwise. May we ever be ready to extend our hand in assistance, lest ours be the hand that seeks help.

Keith H. Frankhauser, M.D.

State Regulation of Radiation*

The "laize-faire" attitude of all governing bodies toward radiation hazard has suffered a violent change during the past decade. Up to a few years ago there were no statutes regulating the use of radiation producing devices or radioactive materials. It is true that the National Committee on Radiation Protection and Measurements, with the cooperation of the National Bureau of Standards promulgated, in the form of National Bureau of Standards Handbooks, recommendations for safe radiological practices. However, while these recommendations would probably bear considerable weight in a court of law, they still were not the law of the land. The radiation user had only his conscience to cause him to provide adequate safety.

With the advent of the atomic bomb, nationwide attention was drawn to the health hazards from uncontrolled radiation, and an almost hysterical reaction against the use of radiation ensued. Fortunately, a sane evaluation of the possible hazards returned us to a reasonable perspective, which, however, included the beginnings of City, State, and Federal control of radiation. Today, besides the United States Atomic Eneregy Commission, a number of States, including Illinois, have radiation registration and regulation laws which deal, in minute detail, with many phases of radiation hazard control, and which are provided with stiff penalties for non-compliance.

In Illinois, the basic Act provides that the Department of Public Health shall promulgate rules and regulations for protection against radiation hazards, and shall have jurisdiction over their enforcement. This includes inspection of all radiation installations. Unfortunately, and as usual, a lack of funds has hindered the progress of statewide inspection. As of this date, approximately 6,000 out of 8,000 registered installations have been inspected.

The rules and regulations presently in effect adequately cover most medical uses of radiation. It was the aim of the Department, in the formulation of the rules, to avoid hindering the physician in his use of radiation. There is radiation producing apparatus available which meets all State requirements, so no hardship is imposed upon the physician from an equipment standpoint. Radiation barriers in walls, ceilings, and floors are required to provide adequate protection to working personnel and others in the immediate area. This does not mean that lead must be used in all cases. The criterion for the barrier is that the dose rate through it be less than a specified amount. If, in a certain instance, a plaster wall attenuates the radiation beam to the required value it is entirely satisfactory as a radiation barrier. In other instances more than one-half inch of lead is required in walls which guard deep x-ray therapy machines, and as much as fify inches of concrete for Cobalt-60 units. In these cases the cost of the required protection is high; but the cost of adequate protection for one's employees and one's neighbors cannot be thought of as an unnecessary financial hardship.

There is nowhere in the regulations any limitation on the amount of dose which the patient may receive from medical or dental purposes. The amount of this dose is left entirely to the discretion of the physician. The "Maximum Permissible Dose" rules of the Atomic Energy Commission and the State of Illinois refer only to radiation workers and to individuals in the general public. They are specifically excluded from application to persons receiving radiation for medical urposes.

Some industrial areas, such as atomic reactors, have not yet been specifically covered by the regulation. Such regulations will shortly be considered by the Department of Health. It is a pleasure to note that comments by individuals in Departments of Health in other States have been universally highly favorable in regard to the regulations of our State.

The use of reactor produced isotopes and certain other source and special materials, the disposition of waste material, and certain other procedures have been under licensure by the Atomic Energy Commission. Such licensure is currently required of physicians using isotopes. In 1959, the Congreses passed legislation enabling the Atomic Energy Commission to transfer to the several States certain of the licensing and inspection requirements. In 1961, the Illinois State Legislature passed enabling

legislation providing for the Governor to enter into an agreement with the Atomic Energy Commission, whereby the State of Illinois would assume the licensing and inspection duties. At that time the Governor vetoed the bill. At the present time three States have such an agreement with the Atomic Energy Commission. It is widely felt that licensure in this instance is a State rather than a Federal prerogative, and it is hoped that when conditions become more favorable the State of Illinois will enter into this program.

Physicians may aid the Department of Health in its work by promptly registering all radiation sources and changes in radiation sources. Faithful adherence to the specific rules, as recorded elsewhere in this issue of the Illinois Medical Journal, will of course be the best possible aid to the program. The Department will appreciate constructive criticism.

*Guest editorial by Robert S. Landauer, Ph.D., Physicist, Cook County Hospital, Chicago. For highlights of Illinois State Radiation Law, see Reference Page (pp. 385-388 this issue).

ISMS Endorses "Blue Ballot" Amendment

The Illinois State Medical Society has endorsed the Blue Ballot Judicial Amendment on the basis that the breakdown of our present system of justice in Illinois is the concern of every informed citizen in the state.

The proposed Amendment to the State Constitution will be submitted to voters at the November 6 general election, with the support of both political parties and more than 65 business, labor, farm and civic organizations.

The Amendment will modernize Illinois' costly, inefficient court system. The legal scholars, jurists and lawyers who have worked on this are convinced that it will speed the handling of cases throughout the state. Delays of up to seven years constitute the most serious injustice for thousands of citizens who must suffer severe hardships while waiting for their cases to be heard.

The Amendment will also eliminate much costly waste and will give the Illinois Supreme Court authority to see that every court is run efficiently and economically. It is designed to enable Illinois to have a judiciary that is independent — free of political pressures and obligations.

The present Judicial Article in the Illinois State Constitution dates back to 1848; then it was impossible to foresee the impact of the automobile on the case loads of the courts. Family problems requiring court action also have become much more complex. The major shift of Illinois society from predominantly rural in character to our present urban system has resulted in one court after another being patched into the system until we now have a hodge-podge of conflicting, overlapping courts that constitute an unnecessary burden on taxpayers.

The Committee for Modern Courts, the civic organization conducting the informational campaign for the Blue Ballot, has produced a ten minute motion picture that describes the need for modernization of our court system. It is available for meetings of all types, including county meetings and auxiliary get-togethers.

Secondary Gout

Gout is acquired occasionally as a complication of chronic hemopoietic disorders in which there is augmented turnover of nucleic acids and excessive formation of uric acid. Twenty-seven such cases were encountered over a 10 year period and classified as secondary gout by Gutman and Yu.[1] Of these, 22 developed in the course of polycythemia vera, mycloid metaplasia, or both. The clinical picture of arthritis and tophaceous deposits responds to colchicine but there are differences from primary gout. The onset occurred late in the course of the underlying disease (60 years as compared to 40 of primary gout). In addition 30 per cent were females and in 80 per cent the serum uric acid levels were greater than 10 mg. Almost all had extensive, sometimes very high, urinary acid excretion. Tophi appeared in 16, often within a year of the first attack of gout. Eight had recurrent uric acid calculi. Only one had a family history of gout.

REFERENCE

1. Gutman, A. B. and Yu, T. F., Secondary Gout. Ann. Intern. Med. 56:675 (April) 1962.

Championship Fight Doctor



Chicago Tribune Photo

CHAMPIONSHIP WEIGH-IN. Dr. Bellucci (second from left) looks on as Chief Boxing Inspector Arthur Winch checks Floyd Patterson's weight. Sonny Liston (right, white robe), patiently awaits his turn on the scale.

What is the new heavyweight champion of the world really like? "From a medical standpoint," says Dr. John B. Bellucci, "he is shamefully healthy." And Dr. Bellucci should know. As chief medical examiner for the Illinois State Athletic Commission, he examined both Sonny Liston and Floyd Patternson at the weigh-in September 25, and was attending physician in Liston's corner during the fight. Doctor Ted Tenczar of the Commission was assigned to Patterson's corner.

According to Dr. Bellucci, both fighters checked out "AOK" at the weigh-in examinations. "We look primarily for any impairment of nervous reflexes, which is a fighter's biggest asset. Next is a complete superficial examination of the cardiovascular system. Brain injuries are determined by a verbal mental acuity test.

"Many persons think that the medical limitations for punishment are extended during a championship fight," Dr. Bellucci commented. "Nothing could be further from the truth. Both attending physicians are constantly on the lookout to see that each fighter can defend himself properly at all times."

After the fight, Liston told Dr. Bellucci that he had hurt Patterson in the first few seconds of the fight, the reason Patterson kept clinching. The actual "knockout" punch occurring after the third clinch was "almost anticlimax." Early knockouts can happen to anyone and are not necessarily a result of poor condition, Dr. Bellucci revealed. "Patterson was in good shape after the fight; only a little hazy," he added.

Not all fighters examined by the Commission doctors are champions. Those near the end of their careers require special attention. "We look very closely for signs of long-standing brain damage; also for evidence of scar tissue around the eyes, and damage to the nose." If mind, hands, heart, or any other part of the body is not functioning to the examiner's satisfaction, the fighter is referred to one or more of the eight physicians on the Commission staff for specialized examination. "Every diagnostic procedure necessary is utilized to determine a fighter's ability to continue his profession," Dr. Bellucci said. The major concern of the Illinois Commission is to make certain that boxers and wrestlers (and this includes lady wrestlers), are in top physical condition *before* entering the ring. This kind of precaution pays off in preventing ring tragedies like the recent death of Benny (Kid) Paret in Miami."

What about recent moves to ban boxing as a dangerous, "barbaric" sport? "More football players are killed yearly than boxers," Dr. Bellucci asserted. "A boxer who is properly trained and conditioned stands a better chance than a football player."

A practicing physician in Chicago as well as a Commission examiner, Dr. Bellucci recommends boxing as a part of a national physical fitness program. "It is an excellent physical conditioner, promotes self-assurance and encourages good habits, physical and mental."

M.D. In The News

Eye Doctor With An Eye For Art



DR. JACK COWEN, Chicago ophthalmologist and prize-winning artist, shown here with several of his paintings from his "French North African Period."

A Chicago ophthalmologist with an eye for art made news recently by winning 1st and 2nd prizes with his watercolor portraits at the Physicians' Art Association exhibit held in conjunction with the June AMA convention in Chicago. Dr. Jack P. Cowen's pictures have joined other selected paintings and sculpture on a 30 city tour for the benefit of the Salk Institute for Biological Studies in Southern California.

Dr. Cowen, a 1931 graduate of Rush Medical College, began to study drawing in 1945 while on duty with the Navy. After the war, he studied at the Art Institute in Chicago and later worked in the studios of Constantine Pougialis, Paul Weighardt and Francis Chapin.

He finds drawing a natural form of communication. "I would rather illustrate something than write about it or describe it verbally. I have never been a good reader. As a matter of fact, I learned anatomy largely by drawing pictures of things to be learned."

Dr. Cowen is attending ophthalmologist at Michael Reese Hospital and Mandel Clinics and is a fellow of the American College of Surgeons, the Pan-American Congress of Ophthalmology and the Institute of Medicine of Chicago.

Other hobbies include ornithology; he is a member of the Illinois, National and Tropical Audubon societies.

He describes his painting style as expressionist and stresses the emotional appeal of art which he defines as "the preparation and simplification of a complexity of patterns, colors, moods, ideas even thoughts and phantasies prepared by the artist for its *emotional* appeal to the audience or observer."

Should physicians paint? Will painting make one a better physician? Dr. Cowen feels that "every form of self-expression makes one a fuller, richer person. I feel that my work as a doctor fulfills by obligation to mankind and justifies my existence. Painting justifies me to myself."



LEFT. Winner of the first prize at the AMA convention exhibit of the American Physicians' Art Association entitled "A Mexican Half-Caste" painted in coffee and ink.

RIGHT. "The Temple of Poseidon," a water color.



Highlights of Illinois State Radiation Protection Law

In 1957 the Illinois State Legislature enacted a law providing for the registration of all radiation producing devices, such as x-ray machines, and all radioactive materials such as radium and artificially radioactive isotopes. This law provides no regulation regarding their use. It merely requires the user or owner to notify the Department of Public Health, Springfield, Illinois of the possession of such devices. Additionally, further notification must be given indicating any changes in the original quantities registered. Registration blanks are available from the Department of Public Health.

In 1959 an act regulating the use of ionizing radiation was passed by the legislature. The gist of pertinent sections of the Department of Health's "Rules and Regulations for Protection Against Radiation Hazards" follows:

1.* The radiation referred to includes gamma and x-rays, alpha and beta particles, high speed electrons, neutrons, protons and other nuclear particles but not sound or radio waves or visible, infra red or ultra violet light.

2. There shall be a responsible person in charge of radiation protection in each radiation installation, who shall be responsible for providing the necessary instructions for safe working practices.

3. No person shall intentionally administer radiation to a human being unless such person is licensed to practice a treatment of human ailments by virtue of the Illinois Medical, Dental or Chiropody Acts. However, a person acting as a technician, nurse, or other assistant, under the supervision, prescription or direction of the above, may administer radiation in accordance with such supervision.

4. The user shall control all sources of radiation in such a way as to provide reasonable assurance that no person will receive a dose of radiation in excess of certain specified limits.

5. The specified limit for radiation workers is that the total accumulated dose at any time does not exceed 5 (N-18) rem, where N is the person's age at his last birthday. For the individual in the general population the value is one-tenth the above. Some modifications of the above limits under certain circumstances are provided for.

*See appendix on last Reference Page for Department of Health Rule or Regulation corresponding to the numbered paragraphs.

REGULATIONS REGARDING MEDICAL FLUOROSCOPES:

6. Diagnostic protective type tube housings shall be used.

7. The useful beam shall be limited by an adjustable shutter so that with the shutter wide open there is a border of at least one-fourth inch of unilluminated screen on all four sides, regardless of the screen position during use.

8. The filter permanently in the beam shall be at least 2.5 mm. of aluminum or its equivalent.

9. The target to panel distance should be not less than eighteen inches and shall be not less than twelve inches.

10. The lead glass covering the fluoroscopic screen shall have a lead equivalent of at least 1.5 mm. for 100 PKV. and 1.8 mm. for 130 PKV.

11. The dose rate at the panel shall not exceed 10 r per minute.

12. The fluoroscopist should wear a protective apron or gown having a lead equivalent of not less than 0.25 mm. Observers or assistants allowed in the examining room should wear similar aprons. The hands of the fluoroscopist, either with or without protective gloves, should never be placed in the useful beam unless the beam is attenuated by the patient.

13. Only necessary attendants and/or observers shall be permitted in the room during fluoroscopic examinations.

14. Ordinarily, only secondary barriers are required in the building structure. Calculations should be made to determine barrier requirements.

REGULATIONS REGARDING RADIOGRAPHIC X-RAY INSTALLATIONS:

15. The tube housing shall be of the diagnostic protective type.

16. The beam shall be collimated by means of cones or diaphragms to reduce the useful beam striking the patient to the smallest area which is clinically necessary.

17. The total filter permanently in the beam shall be not less than 2.5 mm. of aluminum or its equivalent.

18. A timer shall be provided to limit the exposure. A "dead man" exposure switch shall be employed and shall be so arranged that it cannot be operated by a person who is outside of a shielded area.

19. No person shall be regularly employed to hold or support patients. Radiological personnel shall not perform this service except very infrequently, and then only in cases of emergency.

20. Only the patient and persons required for the radiographic procedure shall be in the radiographic room during exposure.

21. Any installation constructed after January 1, 1961, shall have the control located outside the radiographic room, or behind a permanently shielded control within the room. Only stationary screens may be used for this purpose. The Director of the Department of Health may provide that specific installations need not comply with this rule.

22. All walls, floors and ceilings shall have permanent radiation barriers equal to those recommended in the applicable National Bureau of Standards Handbook. As of August 1962, such Handbook is #76, and is entitled "Medical X-ray Protection Up To Three Million Volts."

THERAPEUTIC INSTALLATIONS ABOVE 120 PKV:

23. Therapy protective type tube housings shall be used.

24. Control shall be located outside of the treatment room.

25. All wall, ceiling, and floor areas to have permanent barriers equal to those recommended in the applicable National Bureau of Standards Handbooks. As of August, 1962, Handbook #65 for x-rays and Handbook #73 for Sealed Gamma Sources (Cobalt-60 and Cesium-137 units). Movable protective barriers are not acceptable.

26. No person who works with radiation shall be in the treatment room during exposure. No other person shall be there except when in the opinion of the attending physician it is clinically necessary.

27. An electro-mechanical interlock shall be provided at the door to the treatment room so that when the door is opened, and/or open, the exposure is terminated.

MEDICAL THERAPEUTIC INSTALLATIONS BELOW 50 PKV:

28. The tube housing shall be of therapeutic type protective housing, except in the case of a Contact x-ray tube, where the leakage radiation at the surface of the housing shall not exceed 0.1 r per hour.

29. The control may be located in the therapy room. If the useful beam, in actual practice, will not strike the operator no barrier is required.

30. Generally, no additional structural barriers will be required in walls. Calculations should be made to determine if such barriers are required.

MEDICAL THERAPEUTIC INSTALLATIONS BETWEEN 50 AND 120 PKV:

31. The tube housing shall be of the therapeutic protective type.

32. All floor, ceiling, and wall areas shall be provided with structural barriers as recommended in the applicable National Bureau of Standards Handbook, which, as of August, 1962, is #76. Movable barriers are not acceptable for installations capable of operating above 100 PKV. The Director may approve the use of movable barriers in specific installations operating below 100 PKV.

33. No person other than the attending physician or his assistant shall be in the treatment room during exposure, except if, in the opinion of the physician, such attendance in the room is clinically necessary.

Many rules have been omitted and others have been condensed, but it is believed that the above gives an adequate general picture of the current rules and regulations which are of interest to the medical profession.

APPENDIX

PARAGRAPH	RULE#	TITLE
1	1.027	Radiation
2	2.005	Responsibility
3	3.001	Authorized Use
4	4.001	Control of Radiation Sources
5	4.002	External Exposure
6	6.001	Tube Housing
7	6.002	Collimation
8	6.004	Filtration
9	6.005	Target Distance
10	6.006	Screen Shielding
11	6.007	Panel Dose Rate
12	6.010	Protective Aprons and Gloves
13	6.011	Authorized Persons
14	6.012	Protective Barriers
15	7.001	Tube Housing
16	7.002	Collimation
17	7.003	Filtration
18	7.004	Timer and Exposure Switch
19	7.005	Holding Patients
20	7.006	Authorized Attendants
21	7.007	New Installations
22	7.008	Protective Barriers
23	9.001	Tube Housing
24	9.004	Control
25	9.005	Protective Barriers
26	9.006	Attendants
27	9.008	Interlock
28	10.001	Tube Housing
29	10.002	Control
30	10.003	Protective Barriers
31	10.005	Tube Housing
32	10.007	Protective Barriers
33	10.008	Attendants

Material for this Reference Page was compiled by Robert S. Landauer, Ph.D., Physicist, Cook County Hospital, Chicago.

from the Illinois Medical Journal
OCTOBER, 1962



Walter R. Livingston

Staff Member Guest of World-Wide Economic Conference

Walter R. Livingston, Assistant Director of the Division of Medical Services and Economic Research, has recently returned from Belgium after having been an invited guest at the 13th annual meeting of the Mont Pelerin Society, an international association of economists bound together by common belief in a free market economy. Approximately 125 members and guests were present and represented countries from all over the world at the meeting in Knokke, a small town on the North Sea.

Among the three topics of the meeting were the European Common Market, the recent revival of economic planning in some western countries and the role of government in relation to health services. The third topic was discussed by experts in the field. The acting president of the Society is Professor John Jewkes of Merton College, Oxford, the author of *Genesis of the National Health System*. Among the other discussants was Professor Arthur Kemp, former director of the Department of Economic Research of the AMA. Dr. Kemp concluded that "the best method of financing health care, of purchasing health care, will be the one best suited to the individual, considering all of the varying aspects of an evaluation by the individual bearing on his case."

"The Conference of the Mont Pelerin Society," said Mr. Livingston, "contributed greatly to the advancements of free societies. At the present time we are witnessing a powerful offensive against a market economy. The supporters of central government planning have extended their empire to a large part of the world. Their success stems from their hostility toward capitalism and their response to wishes for collective appropriation which are sweeping over several countries at the present time.

"The success of Russia in its space program has provided central planners with favorable propaganda which tends to make people forget the failures of a centrally planned economy in terms of living standards and increased production.

"The greatest economic successes and highest standards of living are to be found in countries where a market economy still exists. These simple truths formed the framework around which the program of the Mont Pelerin Society was planned," he said.

Expenses for the Conference were met by ten persons whose names are among the most distinguished of the Belgian economic sphere. Also participating were the Federation of Belgian Industries and the Societe Royale d'Economic Politique de Belgique.

The site of the meeting held special significance for Mr. Livingston. From 1956-59 he was editorial and research assistant to ex-president Herbert Hoover. During this time he examined thousands of original documents dealing with relief in Belgium during World War I which were used in the preparation of two books by the former president — *The Commission for Relief in Belgium* and *The Ordeal of Woodrow Wilson*. The Commission for Relief in Belgium was administered by Mr. Hoover to aid the war-torn country.

(section continued on page 409)

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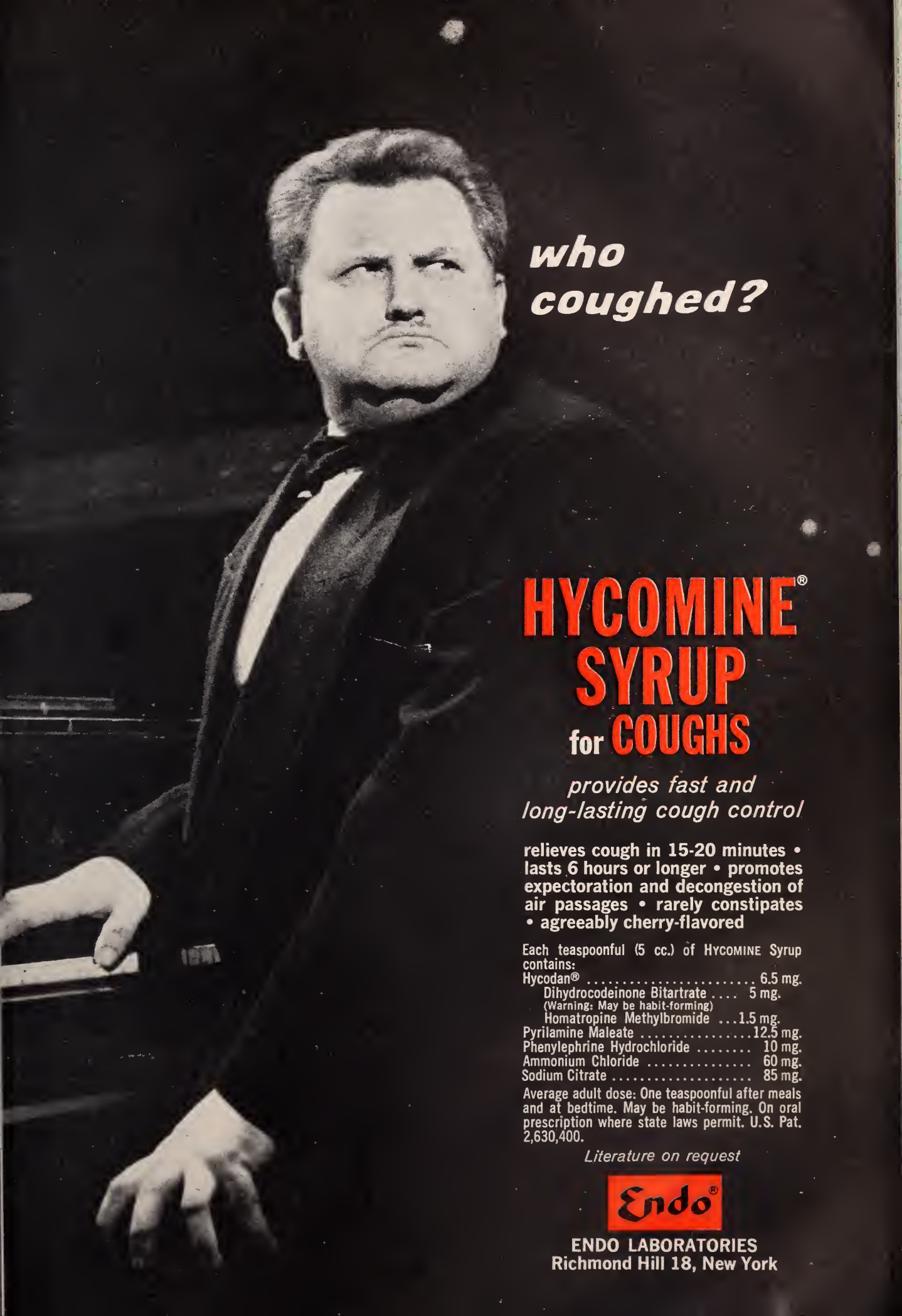
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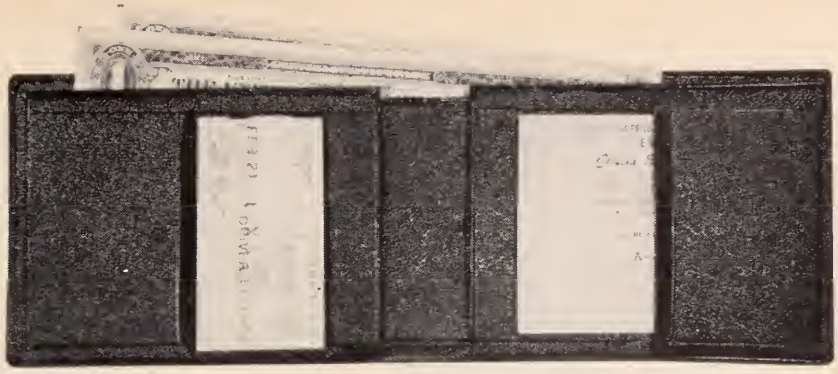
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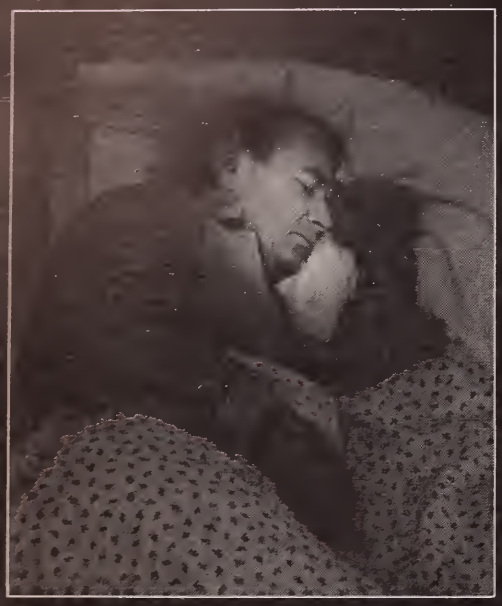
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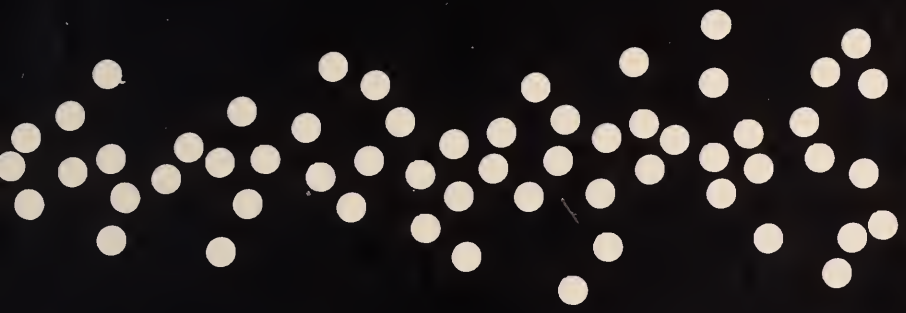
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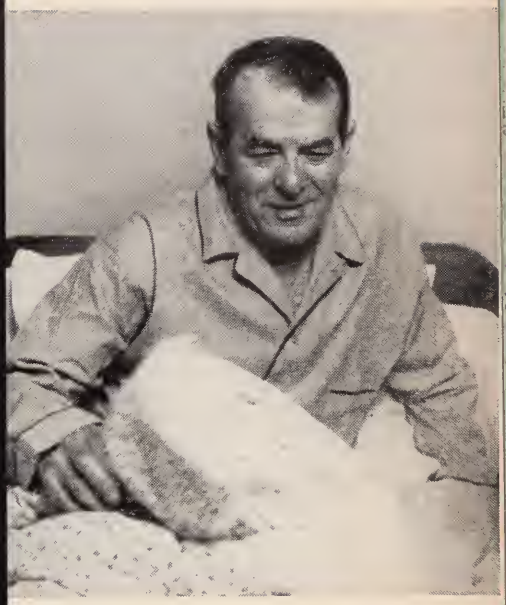


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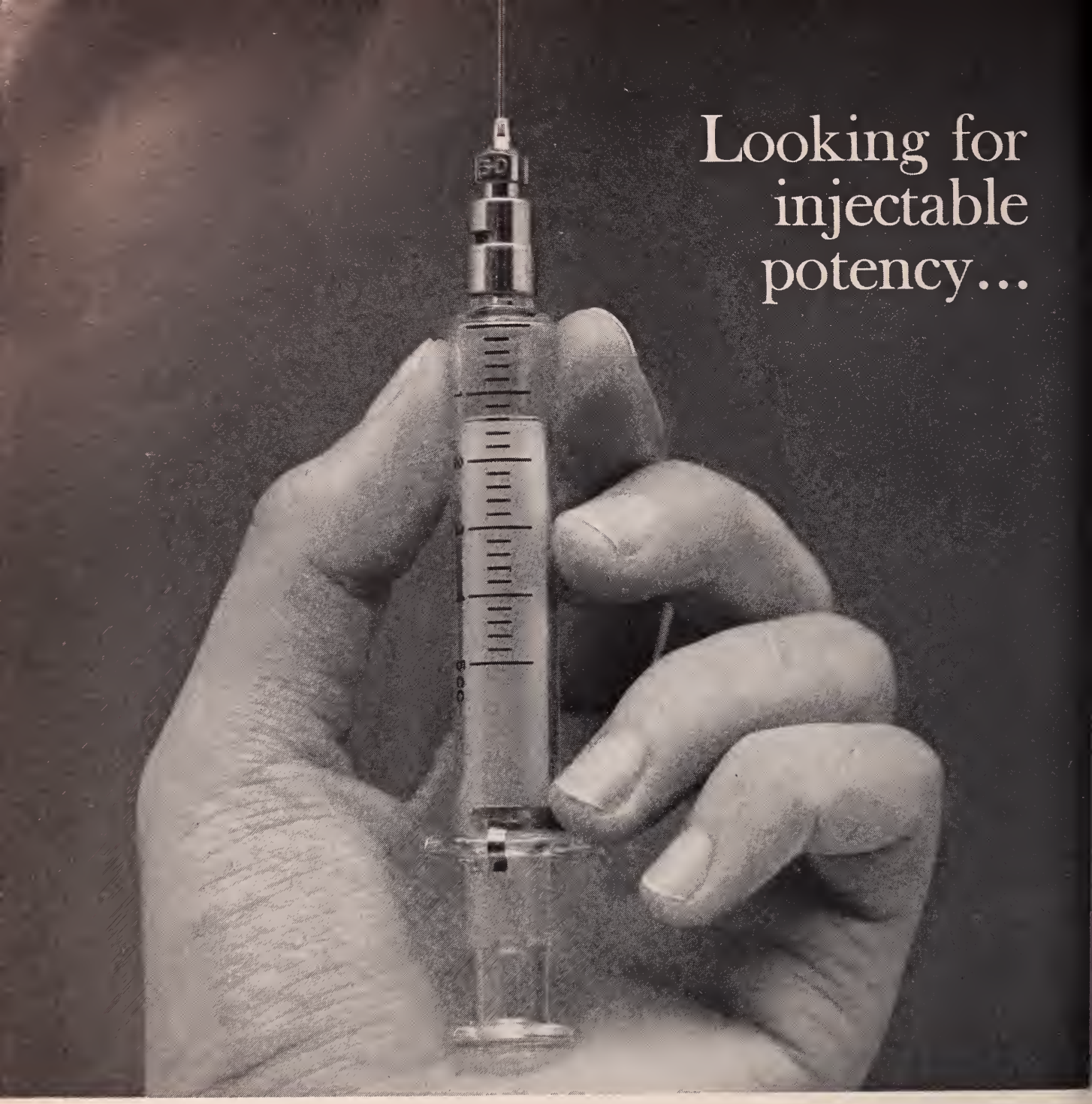
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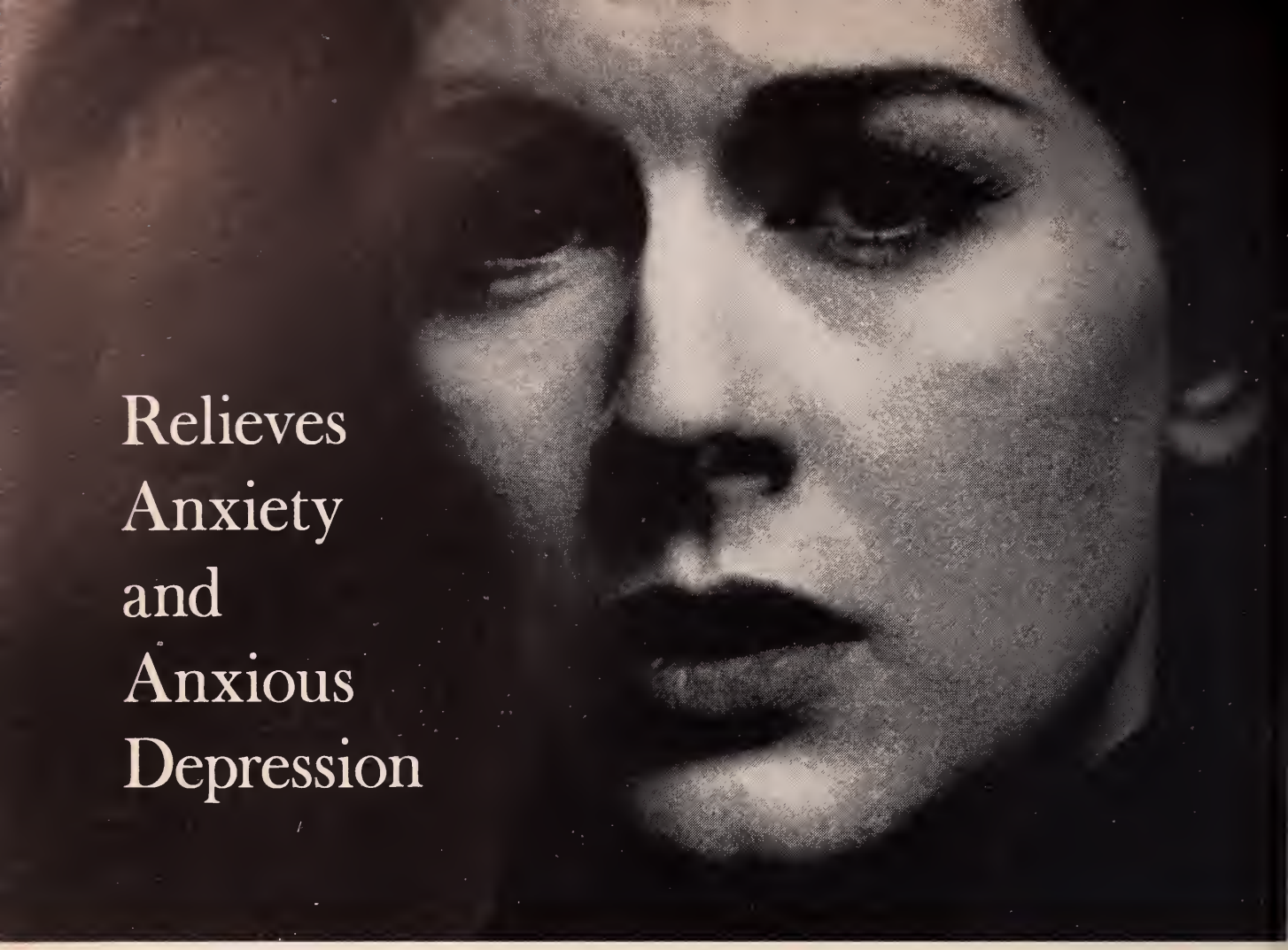
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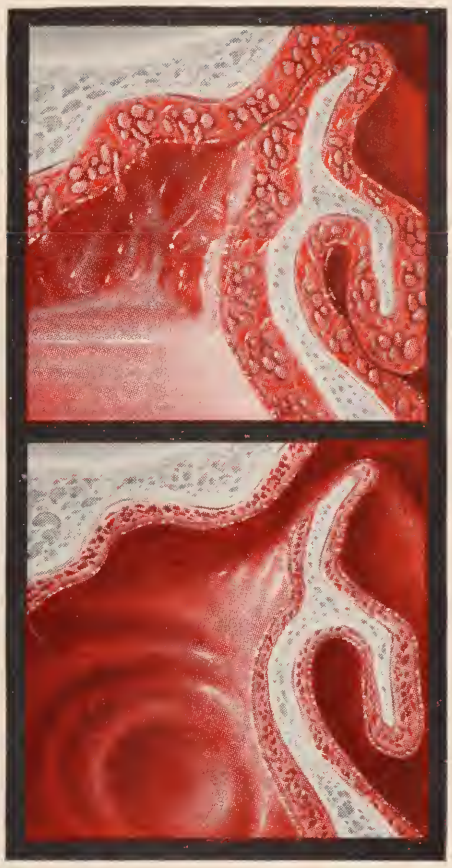
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Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.[1-3] Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

Winthrop LABORATORIES
New York 18, N.Y.

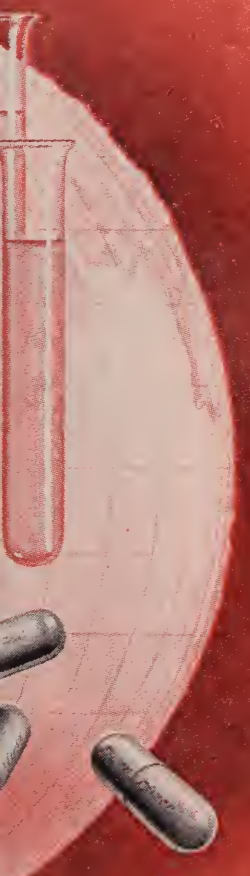
1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.



from boutonneuse fever in Afric

Whether treating boutonneuse fever, bronchopneumonia, or a host of other infections, physicians throughout the world continue to rely on the effectiveness, relative safety, and exceptional toleration of Terramycin in broad-spectrum antibiotic therapy. This continuing confidence is based upon thousands of published clinical reports and successful experience in millions of patients. *The next infection you see will more than likely be "Terra-responsive."*

ce for the world's well-being® Pfizer PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, New York



IN BRIEF The dependability of Terramycin in daily practice is based upon its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using. *More detailed professional information available on request.*

Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

› bronchopneumonia in Illinois

BRAND OF OXYTETRACYCLINE

Terramycin® capsules • syrup • pediatric drops
intramuscular solution • intravenous

also available with nystatin as TERRASTATIN® (capsules and oral suspension)

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.

Also available without codeine as

'EMPRAZIL'®

TABLETS



BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N.Y.

1962 REPORT

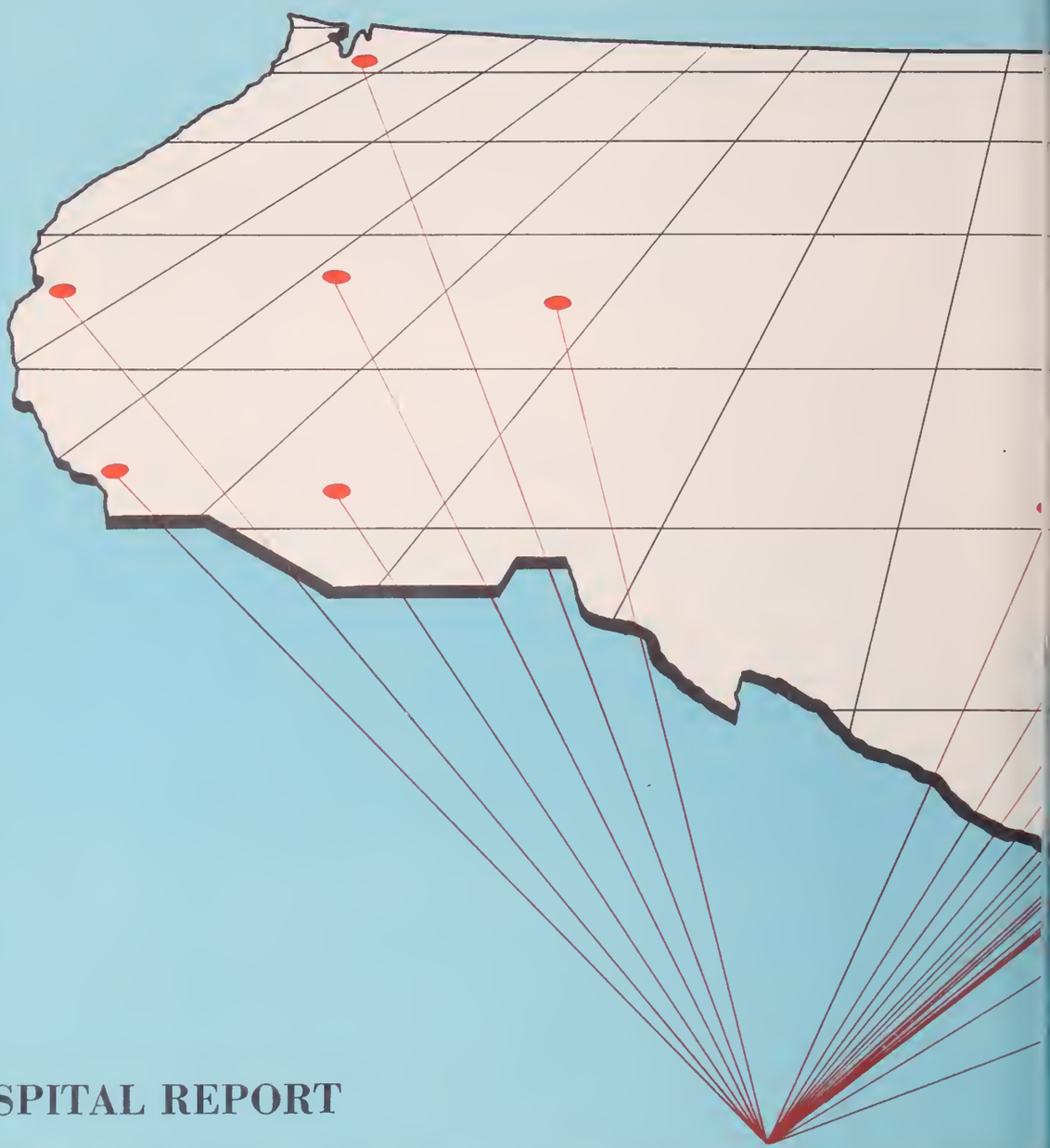
Nationwide hospital survey of bacterial susceptibility pattern in 9,872 cultures of common pathogenic bacteria isolated from patients

With each passing year, determination of antibiotic effectiveness becomes more critical, and shifting patterns of resistance emerge.

What is the *current* geographical status of *in vitro* bacterial susceptibility to antibiotics?

To get the answer, 23 geographically-dispersed hospitals contributed to a susceptibility survey. Each hospital supplied its own antibiotic sensitivity results which were then tabulated and statistically analyzed. The results of this unprecedented survey—covering five widely-used antibiotics against 9,872 pure cultures of common bacteria isolated from patients—are summarized on the next page.

CONCLUSION: **overall** results showed a higher percentage of bacterial susceptibility to TAO than to the other antibiotics tested. For the results with the specific bacteria see the following page.



1962 HOSPITAL REPORT

RESULTS FROM A NATIONWIDE



Of 6,725 staphylococcal isolates tested TAO showed a clear superiority; of 2,488 streptococcal and 463 pneumococcal isolates tested results were about equal. Of 196 H. influenzae isolates tested TAO was less effective.



SURVEY OF ANTIBIOTICS

Staphylococcus, streptococcus, pneumococcus and H. influenzae isolated from patients were the organisms challenged by five widely used antibiotics. All the antibiotics have been in clinical use at least five years: penicillin, erythromycin, triacetyloleandomycin, tetracycline and chloramphenicol. Only results of susceptibility studies on pure cultures were considered valid; the disc testing technique was utilized.[1]

Active against common pathogenic bacteria. Even after five years of general use, triacetyloleandomycin (TAO) is highly active against common pathogens. For specific information on the many TAO dosage forms, its uses in acute pediatric, skin and soft tissue, and respiratory infections, turn the page.



1. "Bacterial Susceptibility Patterns: A Geographic Survey." Fowler, J. Ralph, M.D., and Watters, John L., M.D. Scientific Exhibit presented at the Annual Meeting of the American Society of Clinical Pathologists, Chicago, Ill., August 31 to September 8, 1962.



TAO® an antibiotic that time hasn't changed

(triacetyloleandomycin)

You can expect TAO to produce a rapid, decisive response in acute common infections caused by most Gram-positive and some Gram-negative bacteria, including those resistant to many other antibiotics:

Acute respiratory infections: otitis media, sinusitis, tonsillitis, pharyngitis, bronchitis, lobar and bronchopneumonia, lung abcess, bronchiectasis.

Acute skin and soft tissue infections: furuncles, carbuncles, impetigo contagiosa, ecthyma, eczema, infected cysts, abscesses, infected contact dermatitis, cellulitis, infected traumatic or surgical ulcers and wounds.

Acute pediatric infections: particularly streptococcal.

Other acute genitourinary, gastrointestinal and miscellaneous infections: pyelonephritis, pyelitis, ureteritis, cystitis, urethritis (including gonococcal urethritis), acute salpingitis, endometritis, bartholinitis, staphylococcal enterocolitis, osteomyelitis, septic arthritis.

a TAO form for use . . . in patients of all ages . . . in home, office or hospital
TAO capsules (250 mg.; 125 mg.)
TAO Ready-Mixed Oral Suspension (raspberry-flavored) (125 mg./5 cc.)
TAO Pediatric Drops (100 mg./cc.)
Parenteral (as oleandomycin phosphate)
For complete prescription information, including dosage, indications and precautions, consult product brochure

New York 17, N. Y.
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

(continued from page 389)

IMJ Author Selected One of 1962's Outstanding Young Men



Robert J. Freeark, M.D.

Dr. Robert J. Freeark, chairman of the ISMS Committee on Post-Graduate Medical Education and frequent contributor through the Clinical Surgical Conferences to the Illinois Medical Journal, has been named as one of the 10 Outstanding Young Men of 1962 by the Chicago Junior Association of Commerce and Industry.

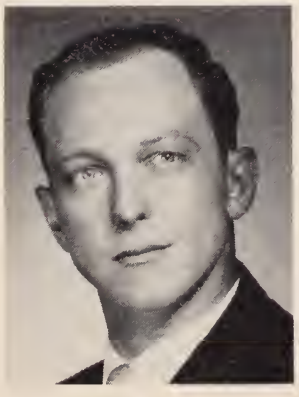
The 10 were picked for contributions to the community through their work and for community welfare activities. Dr. Freeark was cited for his devotion to patient care as well as medical education.

Director of surgical education at Cook County Hospital, Dr. Freeark received his medical degree from Northwestern in 1952 and interned at Cook County Hospital. He spent five years in surgical residency under Dr. Karl Meyers. He was appointed director of surgical education at County in 1958.

As director of surgical education, he supervises four full-time surgeons, the training of 55 residents and 120 interns and over 15,000 major operations each year.

He is an assistant professor at Northwestern University School of Medicine, professor of surgery at Cook County Graduate School of Medicine and instructor in surgery and oncology at the school of dentistry at Loyola University.

Slawny Appointed Media Relations Assistant



James R. Slawny

James R. Slawny, former newsman, teacher and public relations assistant, was appointed media relations assistant for the Illinois State Medical Society, effective July 9. His appointment fills the vacancy left by the retirement of John Mirt.

A graduate of Marquette University's School of Journalism, Slawny brings with him a diversified background including 1½ years of newspaper reporting, two years of high school teaching, two years of radio and television newswriting and two years of public relations work.

While serving on the PR staff of the Milwaukee School of Engineering from 1960 to 1962, he wrote and produced two weekly half hour television programs and an award-winning radio series on engineering.

A native of Milwaukee, he and his wife now live in Evanston, Ill.

NEWS and ANNOUNCEMENTS

Cook County

Appointments

Dr. Harold C. Lueth, Evanston, has been appointed by President Kennedy to the Health Resources Advisory Committee, a newly formed unit of the Office of Emergency Planning. The Committee was set up in an effort to define objectives, and resolve problems, relating to the mobilization of the nation's health resources.



J. Leo Ash

J. Leo Ash has been appointed Director of Administration of River Edge Hospital, now under construction in Forest Park.

River Edge will provide a new approach to mental health hospitals incorporating a considerable freedom for patients, out-patient service, staff and attendants in street wear along with complete psychiatric, medical, and hospital facilities and services.

Dr. Richard A. DeWall, honored widely for the development of operative techniques in open heart surgery, has been appointed chairman of the department of surgery at the Chicago Medical School, effective October 15.

At the same time, Dr. DeWall will assume the post of chief of surgery at Mount Sinai Hospital of Chicago. Dr. DeWall comes to Chicago from the University of Minnesota Medical School where he has been engaged in surgical practice, teaching and research since 1954.

Dr. Oglesby Paul has been appointed chief of the division of medicine of Passavant Memorial Hospital. The appointment will be effective January 1. Dr. Paul succeeds Dr. Howard L. Alt, who resigned from the post to devote more time to private practice and research.

Dr. Paul is now on the attending staff of Presbyterian-St. Luke's Hospital in Chicago and is clinical professor of medicine at the University of Illinois College of Medicine where he was twice voted the Raymond B. Allen Instructorship Award.

Dr. James C. Hampton has been named professor and chairman of the department of anatomy at Northwestern University Medical School. He succeeds Dr. Barry Anson, who is retiring as department chairman.

Dr. Hampton is one of the nation's top authorities on the use of electron microscopes for the study of fine structures of cells.

Dr. Daniel S. Kushner, research scientist, medical educator, and administrator has been appointed dean of the Chicago Medical School.

Dr. Kushner has been director of medical education at Cook County Hospital in Chicago and associate professor of medicine at Northwestern University Medical School.

William K. Beatty has been named professor of medical bibliography at the Northwestern University Medical School and librarian of the Archibald Church Medical Library there.

Construction of the medical school's new wing, scheduled to begin within a few months, will double the size of the present library and will include and exhibition gallery and a room for housing and display of more than 10,000 rare medical volumes and illustrations valued at more than $250,000. The additional space will double the stack area and study facilities, provide more library work areas and a "browsing room" and will extend audio-visual aid facilities.

Elections

The Chicago Society of Industrial Medicine and Surgery has elected Dr. John M. Staron president.

Grants

The U.S. Public Health Service has awarded grants totaling more than $200,000 to three University of Chicago scientists for basic research on the structure and function of the cell and its components.

The recipients and their grants, all for a period of one year, are:

Hewson H. Swift, professor in the Department of Zoology, $86,000 to continue a long-term study of the relation of the fine structure of the cell in animals and plants to the chemistry of deoxyribonucleic acid (DNA) — the molecule that carries the coded message of heredity in the cell — and ribonucleic acid (RNA) which translates the DNA message into the manufacture of protein.

Dr. William Bloom, Charles H. Swift Distinguished Service Professor in the Committee on Biophysics and the Department of Anatomy, $79,648, for the first year of a three year study, using time lapse photomicrography and the high-powered magnification of the electron microscope to observe the changing ultrastructure of chromosomes through the cycle of cell division.

Nine University of Chicago scientists have been awarded grants totalling more than $190,000 from the United States Public Health Service for research in the coming year on cancer, diabetes, atherosclerosis, and disorders of the liver, kidneys and urinary system.

The recipients include:

Elwood V. Jensen, professor in the University's Ben May Laboratory for Cancer Research, $66,700 for studies tracing minute amounts of radioactivity tagged female sex hormones in the bodies of female laboratory rats.

Dr. Ting-Wa Wong, instructor in the Department of Pathology, $22,242 for research on the mechanism by which some complex hydrocar-

Nervous
Geriatrics



Mental
Custodial

Est. 1909

RESTHAVEN

This modernly equipped institution located in the beautiful Fox River Valley 35 miles west of Chicago, cooperates with physicians to the fullest extent.

It provides accommodations for 100 patients in single and double rooms. Resthaven accepts patients as guests, voluntary, and committed by court.

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Phone: SH 2-0327

bon compounds cause cancer in laboratory animals.

Dr. Doland F. Steiner, Assistant Professor in the Department of Biochemistry, $21,844 for studies with laboratory animals of liver metabolism in diabetes.

Dr. Nancy E. Warner, Associate Professor in the Department of Pathology, $15,898 for studies of circulation in the microscopic blood vessels in the pancreas of laboratory animals with diabetes, to determine whether abnormal function of these vessels is a factor in the disease.

Dr. Robert W. Wissler, Professor and Chairman of the Department of Pathology, $23,028 for studies on the effect of diet and other factors in atherosclerosis.

Dr. Cornelius W. Vermeulen, Professor and Head of the Urology Section in the Department of Surgery, $11,500 for research on the effect of diet and other factors on the development of stones in the kidneys and urinary system.

Dr. John D. Arnold, Associate Professor in the Department of Medicine and Dr. Benjamin Spargo, Associate Professor in the Department of Pathology, $16,497 for electron miscroscope studies of tissue changes in the early stages of various forms of kidney disease.

Dr. Andrew Thomson, Assistant Professor in the Department of Medicine, $14,283 to investigate the possible value of urease injections to reduce toxic ammonia in the blood stream in patients with liver disorders.

Raymond E. Zirkle, professor and chairman of the Committee on Biophysics, $55,790 for the first year of a five year study in which a single cell or part of a cell is bombarded with a microscopic beam of ultra-violet rays, protons or alpha particles. Zirkle is investigating microscopic abnormalities in cell division produced by radiation, and their relation to problems in normal cell biology.

The Northwestern University Medical School has received a $533,000 grant for a seven-year study of kidney diseases.



The research grant, made by U.S. Public Health Service, went to Dr. David P. Earle, professor of medicine at Northwestern and head of research at both Passavant and Wesley Memorials hospitals.

The special research program will be aimed as a broad attack on kidney disease, with scientists from dozens of laboratories at Northwestern and both hospitals cooperating to study the kidney from many specialized approaches.

Hospital News

The first new hospital exclusively for the care of psychiatric patients to be built in Chicago since 1951, The Ridgeway was formally opened recently in ceremonies featuring Dr. Francis J. Gerty, director of the Illinois State Department of Mental Health as principal speaker.

The 90-bed nonprofit hospital will provide for short and long term therapy and intensive psychotherapy.

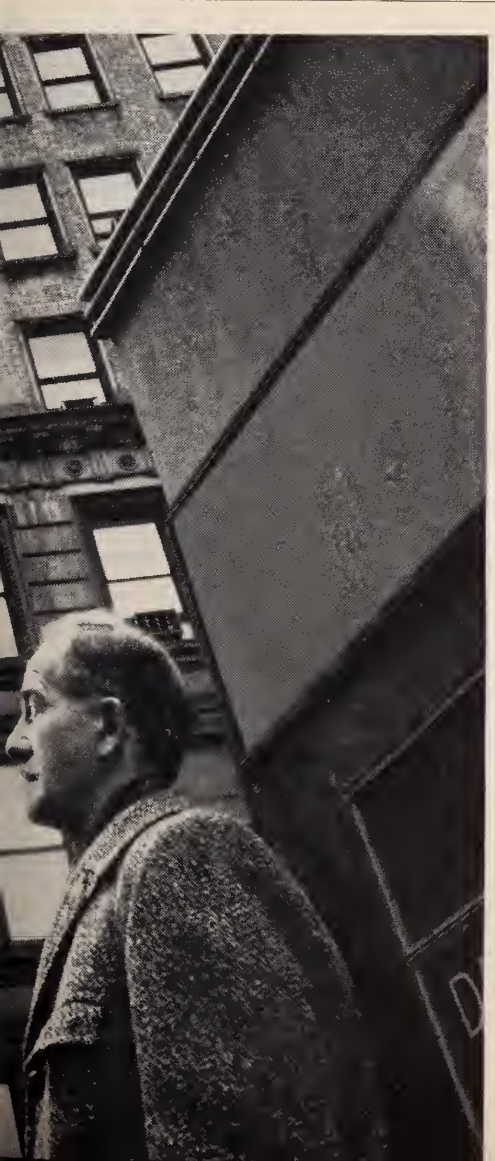
An Intensive Care Unit is the most recent addition to Oak Park Hospital. This type unit is one of the most recent features introduced into the American hospital scene. It groups into one location especially trained nursing personnel and specialized equipment. It functions for the acutely ill patient of the general hospital in the manner similar to the Recovery Room and the immediate post-anesthesia care of the operative patient.

Peoria County

Dr. Fred M. Meixner, an aviation medical examiner for 35 years, was given a testimonial dinner by 150 aviation enthusiasts recently in Peoria.

The majority of those gathered to honor Dr. Meixner were pilots whom he had examined for medical certification through the years.

He has been an aviation medical examiner since 1927 and has given approximately 3,500 examinations during this time.



This patient with arteriosclerosis obliterans complained of intermittent claudication after walking one city block.

now---thanks to

arlidin®

brand of nylidrin hydrochloride N.F.

he walks comfortably block after block after block

"After three months of treatment with Arlidin,
6 mg. orally t.i.d. his walking distance increased to ten city blocks,
the nocturnal cramps disappeared, and
the coldness and numbness of the toes improved."[1]

Rx **Arlidin** to increase local blood and oxygen supply for sustained, gratifying relief of pain, spasm, ache, intermittent claudication in

arteriosclerosis obliterans
thromboangiitis obliterans
diabetic atheromatosis
Raynaud's syndrome
night leg cramps
ischemic ulcers
cold feet, legs and hands

Arlidin is available in 6 mg. scored tablets, and 5 mg. per cc. parenteral solution. See PDR for dosage, packaging.
NOTE—before prescribing ARLIDIN the physician should be thoroughly familiar with general directions for its use, indications, dosage, possible side effects and contraindications, etc. Write for complete detailed literature.

u. s. vitamin & pharmaceutical corp.
800 Second Ave., New York 17, N.Y.

1. Murphy, H. L., and Klasson, D. H.: N. Y. State J. Med. 57:1908, 1957.
2. de Crinis, K., Redisch, W., and Steele, J. M.: Proc. Soc. Exper. Biol. & Med. 102:29, 1959.

Whiteside County

Dr. Alan Blair Sampson, Oak Park, instructor in Obstetrics and Gynecology at Northwestern University School of Medicine will be the featured speaker at the October 25 meeting of the Whiteside County Medical Society. Dr. Sampson's topic will be "Prevention of Maternal Death."

Awards

Dr. Harold Laufman, professor of surgery, Northwestern University Medical School, has been awarded a Traveling Professorship of Surgery from the James IV Association of Surgeons.

The purpose of the award is to enable a surgeon to visit another country, and to exchange knowledge about surgical education. This is the second time it has been given to a U.S. surgeon.

Dr. Laufman will study surgical education in Israel.

The James IV Association of Surgeons is composed of 50 surgeons from Great Britain, Canada, Scandinavia and other countries of Western Europe. Its name honors the second-to-the-last of the Scottish kin, under whose reign the Royal College of Surgeons of Edinburgh was chartered.

General

Appointments

Dr. Francis J. Gerty, director of the Illinois Department of Mental Health has been appointed by the Governor as a member of the Medical Center Commission for a term of five years.

ANNOUNCEMENTS

Meetings

"The Challenge — STOP VD" will be the theme of the 1962 VD Conference, November 9, at the Morrison Hotel. The conference will include the topics "Venereal Disease Education Can't Wait", "Behavioral Science Aspects of Youth and VD," and "Industry, Labor and Public Health Approach to the Youth VD Problem." Dr. George Lull, president of ISMS, will chairman one of the sections of the program.

Reservations which are $3.50 may be made with Dr. Florence Benell, VD Conference Coordinator, 303 East Chicago Avenue, Chicago 11, Illinois or phone 644-2415 or 649-8173.

The Illinois Council for Mentally Retarded Children will host the National Association for Retarded Children at its October 17-20 Convention at the Morrison Hotel in Chicago.

The Chicago Diabetes Association will conduct its Sixth Annual Symposium, Passavant Memorial Hospital, 303 East Superior Street, Friday, November 9, beginning at 9 a.m. Registration is free for members of the Diabetes Association of Greater Chicago and for medical students and resident house staff members. The fee for non-members is $25.00. The symposium is acceptable for 8 hours of Category II credit by the American Academy of General Practice.

The Annual Convention of the American College of Gastroenterology will be held at the Morrison Hotel in Chicago, Illinois, October 29-31.

The Interscience Conference on Antimicrobial Agents and Chemotherapy will be held in Chicago at the Morrison Hotel October 31-November 2. Under the sponsorship of the American Society for Microbiology, the meeting will include presentations in the areas of infectious disease, cancer chemotherapy and antibiotics. All members of ISMS are invited to attend the meeting.

On February 8-10 New York University Medical Center in conjunction with the Ameri-

can Society for the Study of Sterility will present a symposium on infertility planned for urologists, gynecologists, endocrinologists, internists, and others interested in problems in this field.

Lectures, panels, and demonstrations will be divided into three categories — problems of the male, the female, and the couple.

The tuition will be $75. For a detailed program and application address the Associate Dean, New York University Postgraduate Medical School, 550 First Ave., New York 16.

The 31st annual meeting of the American Academy of Pediatrics will be held in the Palmer House, Chicago, October 27-November 1. The scientific section which is expected to attract more than 4,000 persons will present general sessions, symposia, scientific papers, pediatrics reports, awards and clinical sessions at some Chicago hospitals.

American College of Surgeons Annual Clinical Congress will meet in Atlantic City October 15-19.

The Annual Meeting of the American Rhinologic Society will be held in Los Angeles, November 1-2. The meeting will be preceded by a three day course in "Expanded Surgery of the Nasal Septum" to be presented at Loma Linda University.

The Academy of Psychosomatic Medicine will hold its Annual Meeting in Minneapolis November 1-3.

The care and management of animals used in biological and medical research was presented and discussed at the Animal Care Panel's Annual Meeting in Chicago, October 2-5.

Grants Offered

The American Thoracic Society, medical section of the National Tuberculosis Association, offers grants for research in respiratory diseases, including tuberculosis. Grants are awarded for medical and social research in these fields. Deadline for applications for the grant year



A new 90-bed non-profit hospital for psychiatric therapy, opened in September of 1962, just ten minutes from Chicago's Loop.

The RIDGEWAY provides a setting conducive to intensive psychotherapy, and comprehensive facilities for somatotherapy.

Patient comfort is emphasized throughout the beautifully decorated air conditioned building, with an excellent cuisine and an active recreational and occupational therapy program.

For further information, contact:
Melvin N. Seglin, M.D.
Director of Professional Services

The Ridgeway 520 North Ridgeway Avenue, Chicago 24, Illinois
Phone 722-3113

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New Airmass APP units have narrow air cells under patients' heels. Heels benefit from alternating air cells inflating and deflating every 120 seconds, as well as broader body areas. Longitudinal cells do not restrict venous return.

TROUBLE-FREE POWER CARTRIDGE PUMP

Operates 24 hours a day, year after year. No sound, no vibration, no diaphragm, no oiling. Unconditionally guaranteed two years. Should repair ever be needed, a new Airmass Power Cartridge Pump is substituted in two minutes!

NOW ONLY $195

Even with these dramatic improvements, Airmass Alternating Pressure Pads are reduced in price. Now only $195.00 complete!

on an Airmass Alternating Pressure Pad...

- Patients are more comfortable
- They're protected against decubital ulcers
- Existing ulcers heal quicker
- Venous circulation is not restricted
- Patient turning and massage are sharply reduced

For complete details on new APP units, a demonstration, or free trial, write to:

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beginning July 1, 1963 is December 15, 1962. Full information and forms may be obtained from: Division of Research and Statistics, American Thoracic Society, 1790 Broadway, New York 19, New York.

Essay Contests

Junior and Senior students of all medical schools in this country have been invited to submit entries to the Annual Walter Reed Memorial Essay Competition of the Brooklyn Hospital. Three cash prizes will be offered: $1,000, $750 and $500. The closing date for entries will be March 1, 1963. Essays should be from 5,000 to 10,000 words in length and submitted in triplicate.

Emphasis should be placed on a clinical topic rather than one dealing primarily with the basic sciences. The students may use experimental data derived from personal researches, but there is no intent in any way to limit the subject material which may fall within any branch of clinical medicine or surgery. The student may wish to review critically problems of pathogenesis, diagnosis or the treatment of disease.

Essays should be sent to: Abraham G. White, M.D., Director of Medical Education, The Brooklyn Hospital, 121 DeKalb Avenue, Brooklyn 1, New York.

The Academy of Psychosomatic Medicine has announced its fourth annual contest for the best paper on a clinical or research subject in the field of psychosomatic medicine. The winner will be awarded the Academy's gold medal for scientific writing and the manuscript will be published in "Psychosomatics," the official journal of the Academy.

PG Courses

The Department of Otolaryngology, University of Illinois College of Medicine, will conduct a postgraduate course in Laryngology and Bronchoesophagology from March 18 to 30, 1963, under the direction of Paul H. Holinger, M.D.

Since registration will be limited to 15 physicians, interested registrants are urged to write

to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

Crippled Children's Clinics

November	1	Peoria (Cerebral Palsy), The Roosevelt School
November	1	DuQuoin, Marshall - Browning Hospital
November	1	Sterling, Community General Hospital
November	2	Chicago Heights (Cardiac), St. James Hospital
November	7	Fairfield, Fairfield Memorial Hospital
November	7	Hinsdale, Hinsdale, Sanitarium
November	8	Bloomington (Cerebral Palsy — p.m.), St. Joseph's Hospital
November	8	Macomb, St. Francis Hospital
November	8	Springfield (General), St. John's Hospital
November	13	East St. Louis, Christian Welfare Hospital
November	13	Peoria (General), Children's Hospital
November	13	Pittsfield, Illini Community Hospital
November	14	Champaign-Urbana, McKinley Hospital
November	14	Joliet, Silver Cross Hospital
November	15	Decatur, Decatur & Macon County Hospital
November	15	Elmhurst (Cardiac), Memorial Hospital of DuPage County
November	15	Rockford, St. Anthony's Hospital
November	20	Alton (General), Alton Memorial Hospital
November	20	Danville, Lake View Hospital
November	21	Evergreen Park, Little Company of Mary Hospital
November	27	Peoria (General), Children's Hospital
November	28	Centralia, St. Mary's Hospital
November	28	Elgin, Sherman Hospital
November	28	Springfield (Cerebral Palsy — p.m.), Memorial Hospital
November	29	Effingham (Rheumatic Fever), St. Anthony Memorial Hospital

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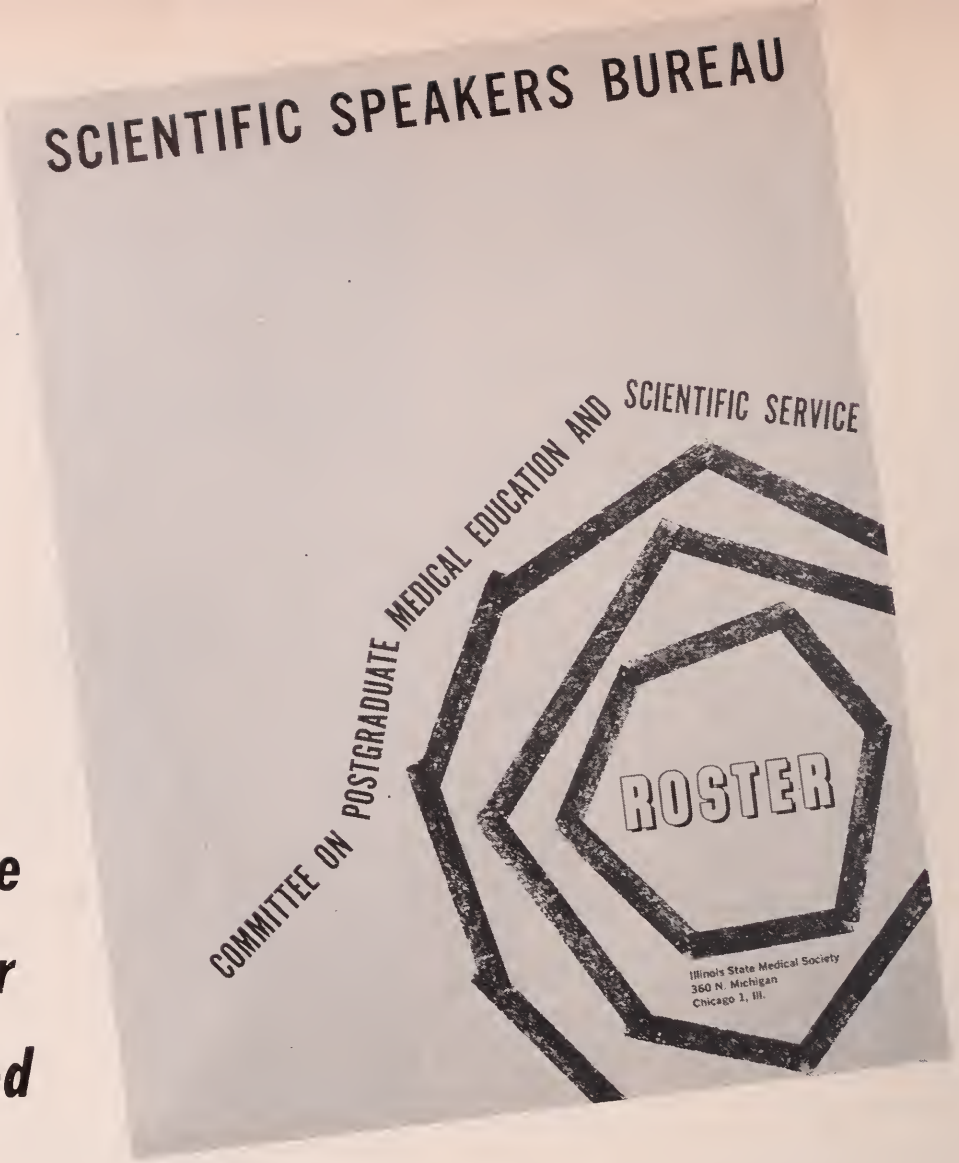
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Clinical samples sent to physicians upon request.

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Unique Roster Revised



The Scientific Speakers Bureau Roster, a unique Illinois Medical Society membership service recently has been revised and distributed to county and branch society program chairmen. The roster includes more than 400 physicians qualified to speak on approximately 1,300 scientific topics before medical society meetings and for postgraduate education courses.

The revision was prepared by the Committee on Postgraduate Medical Education and Scientific Service under the direction of the 1961-1962 Chairman, Dr. Noel B. Shaw, and is the first since 1958.

The roster is divided according to standard AMA specialties; it lists the speakers alphabetically with their topics.

Eight weeks' advance notice is required to obtain a speaker. Requests should be addressed to the Committee Chairman, Dr. Robert Freeark, c/o the Illinois State Medical Society, 360 North Michigan Avenue, Chicago 1, Illinois.

After having obtained a speaker for the county meeting, the Society will also aid in publicity, if requested, and will send out notices of the forthcoming meeting and speaker to all members of the county society.

Normally the county society is expected to pay the honorarium and expenses of the speakers. If this is not possible, the Chairman of the Committee will approve payment directly to the speaker of a $25 honorarium plus his expenses.

County medical societies are urged to make frequent use of this service designed to provide them with the best possible speakers for their meetings.

A small number of extra copies of the roster are available and can be obtained by writing to the Committee.

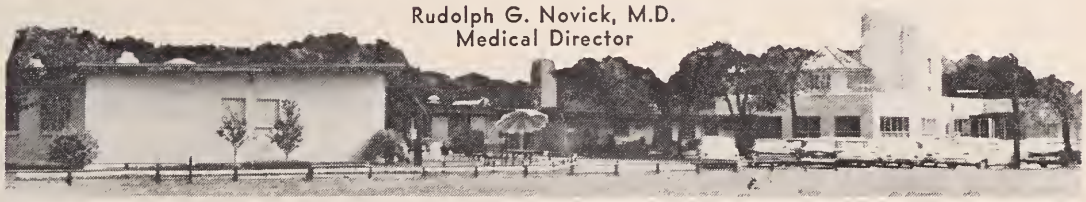
Forest Hospital

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Deaths

Marian Wallace Bougher,° retired, Chicago, a graduate of Harvey Medical College in 1904, died September 9, aged 86. She was a member of the 50 Year Club. Before their retirement two years ago, she had practiced with her husband, William S., who died last year.

Charles Otis Boynton°, Sparta, a graduate of Homeopathic Medical College of Missouri in 1897, died September 2, aged 87. He was an emeritus member of ISMS and a member of the 50 Year Club. Prominent in community affairs, he donated one wing of the Sparta Community Hospital.

Herman John Carr°, Palatine, a graduate of the University of Illinois College of Medicine in 1941, died August 3, aged 58.

William T. Felts°, Carbondale, a graduate of Northwestern University Medical School in 1935, died August 22, aged 55. His memberships included the American Academy of General Practitioners. He served in the Air Force Medical Corps in World War II.

Claude E. Gilliatt°, Mount Carmel, a graduate of the Hospital College of Medicine in Louisville, Kentucky in 1898, died May 3, aged 84. He was a member of the 50 Year Club and the American Academy of General Practitioners and had emeritus standing in ISMS. He served as a county coroner for eight years and was an examiner for selective service in World Wars I and II.

Robert Erle Hurie°, Springfield, a graduate of the University of Illinois College of Medicine in 1941, died Jnly 23, aged 48.

C. Roy Johnston°, retired, Seattle, Washington, a graduate of St. Louis University in 1905. He was a member of the 50 Year Club.

Adelina F. Lobraico°, Chicago, a graduate of the University of Illinois College of Medicine in 1931, died March 22, aged 60.

Max Mond°, Chicago, a gradnate of Albert Ludwig University School of Medicine in Freiburg, Germany in 1920, died Augnst 18, aged 69.

Alma Monroe, retired, Arthur, died Augnst 20, aged 85.

Gilman Wilbur Petit°, Chicago, a graduate of Hahnemann Medical College and Hospital in 1899, died June 15, aged 87. He was a member of the 50 Year Club.

John Jacob Pflock°, retired, Chicago, a graduate of Chicago College of Medicine and Surgery in 1913, died August 26, aged 82. An emeritus member of ISMS, he was co-founder and past president of Garfield Park Hospital. He was a former trustee of the Chicago Medical Society and had served as a delegate to the AMA. He retired in 1946.

Laurence F. Rockey°, Freeport, a graduate of Northwestern University Medical School in 1930, died August 25, aged 63. He was a past president of the Stephenson County Medical Society and a member of the International College of Surgeons. Founder of the Freeport Clinic, he was former chief of staff at St. Francis Hospital and led to the organization of the School of Practical Nursing there. He served as a medical officer in the army in World War II.

Cameron A. Rose°, River Forest, a graduate of the University of Illinois College of Medicine in 1907, died August 21, aged 81. He was a member of the 50 Year Club.

George R. Seward°, Peoria, a graduate of St. Louis University School of Medicine in 1920, died September 8, aged 70. He was a past president of the Proctor Hospital medical staff.

W. E. Shelton, retired, Bradley, died July 12. He had practiced in Chicago and retired in 1950.

Karl I. Stevens°, retired, Park Ridge, a graduate of Bennett Medical College in 1912, died September 4, aged 74. He retired in 1960.

Pierre A. Steele°, retired, Decatur, a graduate of Northwestern University Medical School in 1914, died September 7, aged 72. He had served two terms as commissioner of public health and safety in Decatur and was former president of the Macon County Medical Society.

Frederick Grant Trapp, Chicago, a graduate of Meharry Medical College, Nashville, Tennessee in 1909, died September 4, aged 81.

James William Welch°, Cuba, a gradnate of St. Louis University School of Medicine in 1907, died August 25, aged 78. Dr. Welch was the first physician in Fulton County and one of the first in Illinois to conduct mass vaccination against diptheria. A member of the 50 Year Club, his father helped to organize the Fulton County Medical Society. He had been honored by a community banquet in 1952 for his years of service.



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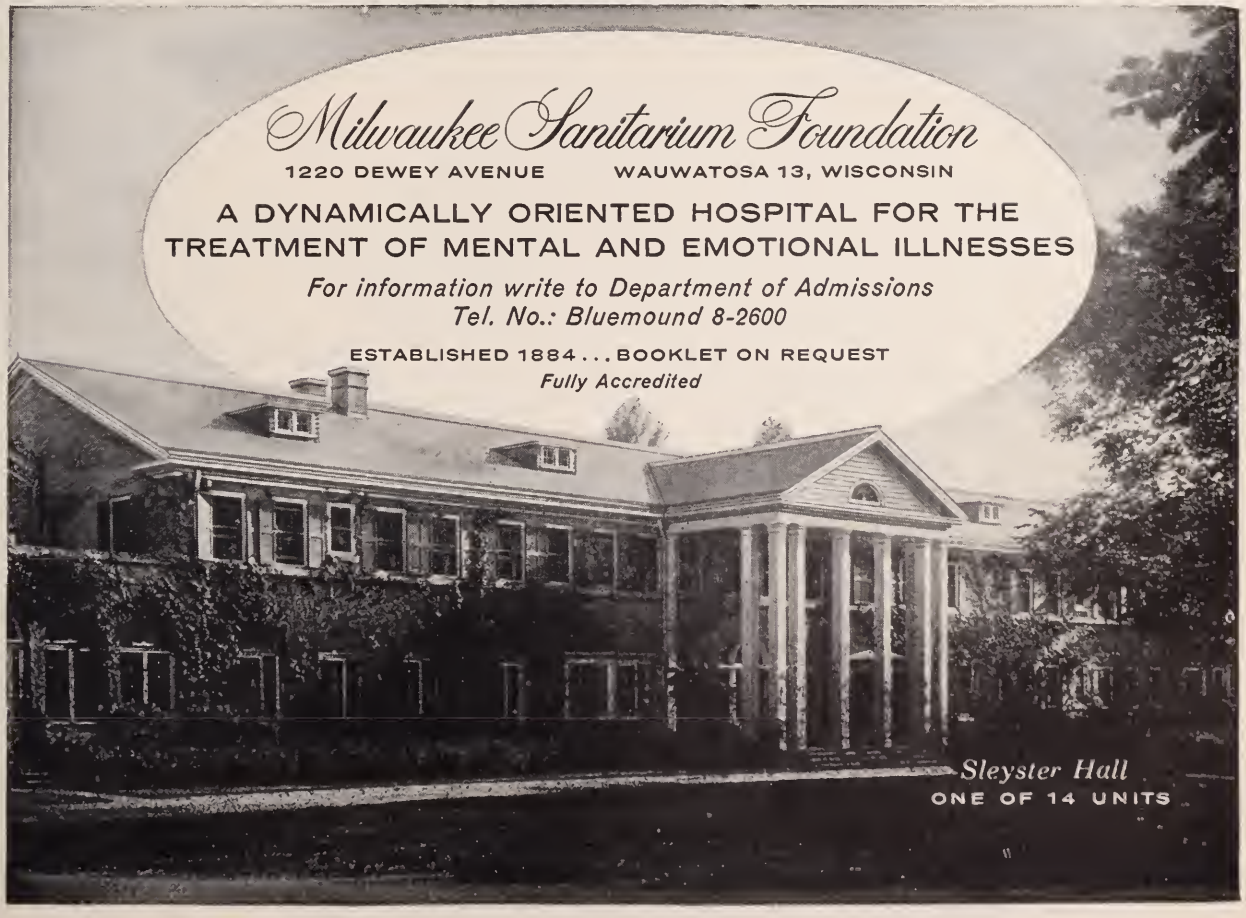
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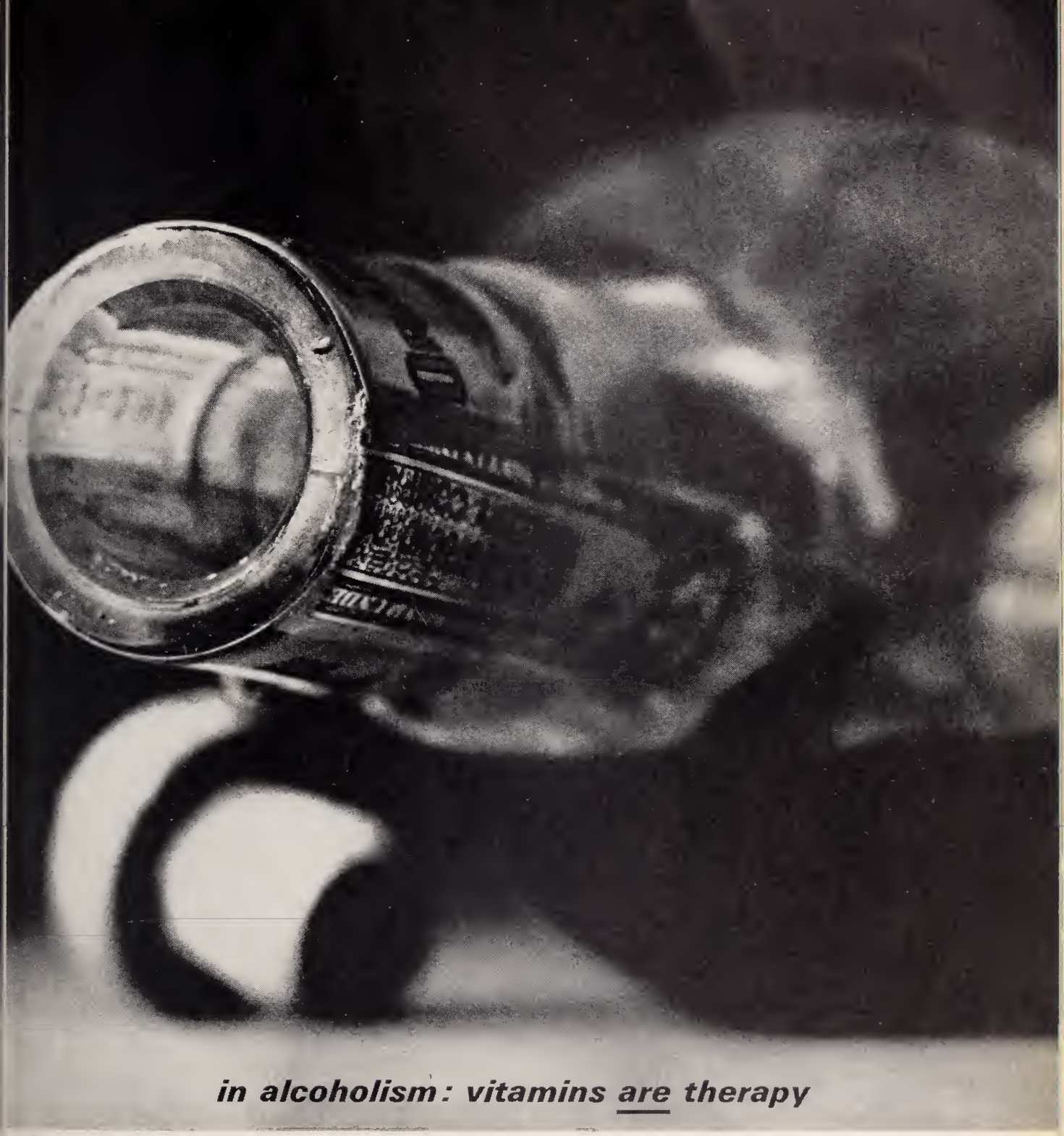
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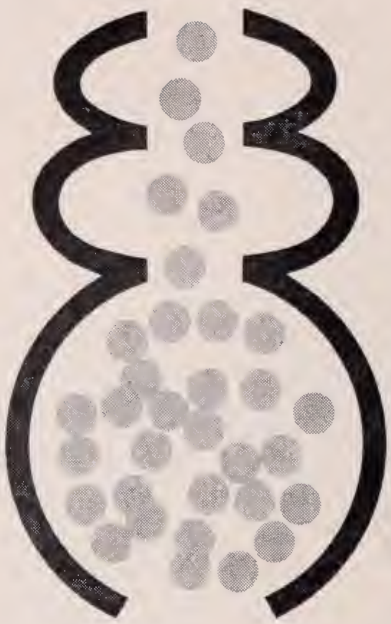
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1. Demeulenaere, L.: Action du R 1132 sur le transit gastrointestinal, Acta Gastroent. Belg. 21:674-680 (Sept.-Oct.) 1958.
2. Kasich, A. M.: Treatment of Diarrhea in Irritable Colon, Including Preliminary Observations with a New Antidiarrheal Agent, Diphenoxylate Hydrochloride (Lomotil), Amer. J. Gastroent. 35:46-49 (Jan.) 1961.
3. Weingarten, B.; Weiss, J., and Siman, M.: A Clinical Evaluation of a New Antidiarrheal Agent, Amer. J. Gastroent. 35:628-633 (June) 1961.

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AS I SEE IT FROM '360'

By Robert L. Richards
Executive Administrator

Not Once . . . Not Twice . . . But Many Times

Elsewhere in this issue is presented a Legislative Roundup of the 87th Congress, which adjourned on October 13 after its longest session in 11 years. During this session some of the most important issues in the history of medical legislation were acted upon, including:

1. King-Anderson, punctuated by the Madison Square Garden debates, the Battle of the Petitions, and terminating in the defeat of the Anderson-Javits amendment.

2. The passing of the Keogh Bill (H.R. 10) giving self-employed persons access to retirement plans on a basis similar to that given persons working for an employer.

3. The passing of the Curtis Bill (H.R. 10117) permitting a tax incentive for employers to establish health care benefits in employee retirement programs.

You will notice in the Legislative Roundup that these bills made several appearances on the agenda calendar between their introduction and final disposition. This chronology of development is consistent with the painstaking, careful policy of our lawmaking bodies to assure that no bill is "pushed through" without being given the closest possible scrutiny. Before becoming law, a bill must undergo the following stages of development:

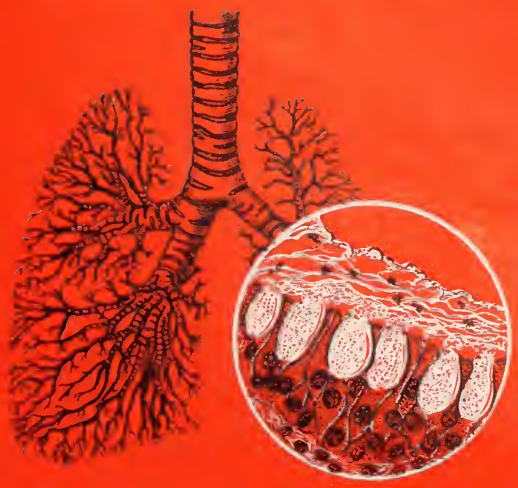
1. Introduction.
2. Referral to a specific committee.
3. Hearing by the committee.
4. Release by the committee for open hearing on the floor.
5. Vote by the chamber introducing the bill.
6. Referral to the other chamber for final modification and vote.

At each of these stages in the development of a bill, you are given the golden opportunity to inform your congressman of your wishes — whether or not you want the bill passed, modified, or voted down. Thus not once, not twice, but at least six times you are able to influence the course of legislation vital to you as a citizen and as a practitioner of medicine.

Over the past year the Society called on you several times to "write your congressman" concerning some important issue, and in the overwhelming majority of instances you have graciously complied. Invariably, these requests were synchronized to one of the crucial developmental stages of medical legislation, assuring that your voice would be heard precisely when and where it would do the most good. If anyone doubts the effectiveness of this method he need only look back as far as July 27, when the Anderson-Javits amendment was shelved. This bill, at first labeled a "sure thing" for passage in the 87th Congress, was defeated largely as a result of personal written protests from physicians to their legislative representatives.

With important medical legislation scheduled for consideration in the next Congress — including a revised version of King-Anderson — it behooves us to remember that each request to write our congressman is not a request to perform a dreary chore, but rather one giving us a blessed opportunity to preserve our free enterprise system of medicine.

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1. Clinical and Physicians' Reports to the Medical Department, Armour Pharmaceutical Company, 1960-1961. 2. Taub, S. J.: Clin. Med 7:2575, 1960. 3. Billow, B. W.; Cabodeville, A. M.; Stern, A.; Palm, A.; Robinson, M., and Paley, S. S.: Clinical Experiences with Oral Anti-inflammatory Enzyme for Intestinal Absorption. Southwestern Med. *41*:286, 1960.

CHYMORAL

Chymoral is an ORAL anti-inflammatory enzyme tablet specifically formulated for intestinal absorption. Each tablet provides enzymatic activity, equivalent to 50,000 Armour Units, supplied by a purified concentrate which has specific trypsin and chymotrypsin activity in a ratio of approximately six to one. ACTION: Reduces inflammation of all types; reduces and prevents edema except that of cardiac or renal origin; hastens absorption of blood and lymph extravasates; helps to liquefy thick tenacious mucous secretions; improves regional circulation; promotes healing; reduces pain. INDICATIONS: Chymoral is indicated in respiratory conditions such as asthma, bronchitis, rhinitis, sinusitis; in accidental trauma to speed absorption of hematoma, bruises, and contusions; in inflammatory dermatoses to ameliorate acute inflammation in conjunction with standard therapies; in gynecologic conditions such as pelvic inflammatory disease and mastitis; in obstetrics as episiotomies and breast engorgement; in surgical procedures as biopsies, hernia repairs, hemorrhoidectomies, mammectomies, phlebitis and thrombophlebitis; in genitourinary disorders as epididymitis, orchitis and prostatitis; in dental and oral surgery as fractures of the mandible or maxilla, difficult or multiple extractions, and alveolectomies. CONTRAINDICATIONS: None known. INCOMPATIBILITIES: None known. Antibiotics as well as generally accepted measures may be coadministered. SIDE EFFECTS: Mild gastric upsets, rarely encountered. DOSAGE: Recommended initial dose is two tablets q.i.d.; one tablet q.i.d. for maintenance. SUPPLIED: Bottles of 48 and 250 tablets. ISSUE: Rev. Nov., 1961

ARMOUR PHARMACEUTICAL COMPANY KANKAKEE, ILLINOIS
Originators of Listica®

CHYMORAL *ORAL systemic anti-inflammatory enzyme tablet*

Orinase Case History







Orinase dosage 1 Gm.= ⊘⊘

Mrs. C. S., a youthful 50-year-old, is a busy clubwoman and civic leader. Her mother was a diabetic, and so is her daughter. In November 1956, she was transferred to Orinase after 16 years on insulin. Following a period of adjustment, her Orinase dosage was stabilized at 2 Gm. daily.

Mrs. S. has no need for increased Orinase in the course of her extensive social activities. For instance, she can and often does arrange for impromptu entertainment at her home without requiring additional dosage.

The patient is frequently
to travel in connection v
social, philanthropic, an
responsibilities. She ne
no increase in Orinase
occasions, and finds he
enjoyable now that she
of the fears and difficult
accompanied insulin inj

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*TRADEMARK, REG. U.S. PAT. OFF.—TOLBUT

5 years of control







Mrs. S. did, however, need more Orinase when pyorrhea and other dental problems necessitated oral surgery, beginning late in 1959. During the five-month course of dental treatment, the patient's Orinase requirement was 3 Gm. daily. Thereafter, she was well maintained on 2 Gm.

When her daughter went to live abroad in 1961, the stress of the parting had an adverse effect, and Orinase had to be increased to 3 Gm. for 2 months. Mrs. S. then resumed her routine dosage.

Apart from temporary, stress-induced changes, Mrs. S. gets along very satisfactorily on 2 Gm. daily. With Orinase control, she has been leading an active and gregarious life for 5½ years.

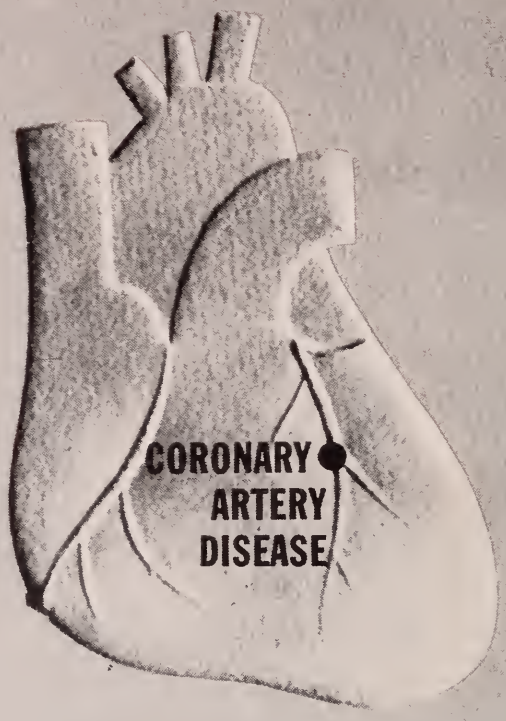
Among oral agents for the treatment of diabetes, Orinase* (tolbutamide) stands in a unique position. It alone has had five years or more of day-to-day routine clinical use in the hands of thousands of physicians throughout the country. Accordingly, there are by now a considerable number of truly long-term Orinase-treated patients. This series of Orinase five-year case histories has been prepared to illustrate and exemplify some aspects of actual experience in management. Patient data made available to us by physicians have been factually incorporated; however, patients' identities have been concealed. Any inquiries regarding this Orinase case history series should be addressed to: Medical Department, The Upjohn Company, Kalamazoo, Michigan.

Orinase is supplied in bottles of 50 and 200 tablets.
Each tablet contains: Tolbutamide ... 0.5 Gm.

Reminder advertisement. Please see package insert for detailed product information.

Upjohn

The Upjohn Company, Kalamazoo, Michigan



• "...now the leading cause of death in diabetic patients."[1]

Diseases of the cardiovascular-renal system account for about three-fourths of deaths among diabetic patients, with heart disease responsible for approximately one-half the total,[2,3] and coronary atherosclerosis the major cause of cardiac lesions.[1] While some feel that diabetics are predisposed, perhaps by heredity, to early onset of vascular disease, considered opinion is that vascular degeneration can be delayed or modified with "...careful and consistent control of diabetes from the time of diagnosis...."[4]

As a major step toward achieving *careful and consistent control,* you can teach your patients to do urine-sugar testing in the way most likely to assure continued cooperation—with the CLINITEST® Urine-Sugar Analysis Set.

for quantitative estimation

color-calibrated

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urine sugar

- continued, close control
- graphic *Analysis Record* encourages co-operation...reveals degree of control at a glance...helps patient maintain control

for "yes-or-no" enzymatic testing

new, improved

DIP AND READ **clinistix®**

urine glucose

10-second reading...longer strip for easier handling...new color chart and color barrier for test area...in glass for protection

Supplied: CLINITEST Urine-Sugar Analysis Set (with bottle of 36 tablets and 2 foil-wrapped tablets); refill boxes of 24 Sealed-in-Foil Reagent Tablets and bottles of 36 tablets. CLINISTIX Reagent Strips in bottles of 60.

References: (1) Root, H. F., and Bradley, R. F., in Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: The Treatment of Diabetes Mellitus, ed. 10, Philadelphia, Lea & Febiger, 1959, pp. 411, 437. (2) Joslin, E. P.; Root, H. F.; White, P., and Marble, A.: *ibid.*, pp. 188-189. (3) Marks, H. H., *et al.:* Diabetes *9*:500, 1960. (4) Marble, A., in Summary of Conference on Diabetic Retinopathy, Survey Ophth. (Part 2) *6*:611-612, 1961.

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AMES products are available through your regular supplier.

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"opened nose clear to the ears"[1]



This was how one patient described the nasal decongestant action of Dimetapp Extentabs. How would *your* patients describe it? From the first tablet, Dimetapp Extentabs provide prompt and prolonged relief from the stuffiness, drip and congestion of upper respiratory conditions, with exceptional freedom from side effects. The reason is in the formula: the potent antihistamine with side effects as few as placebo,[2] DIMETANE® (brompheniramine maleate, 12 mg.) and two outstanding decongestants, phenylephrine HCl (15 mg.) and phenylpropanolamine HCl (15 mg.)...all in dependable, long-acting Extentab form.

NEW DIMETAPP ELIXIR (one-third the Dimetapp Extentabs' formula in each 5 cc.), for conventional t.i.d. or q.i.d. dosage in a palatable, grape-flavored vehicle.

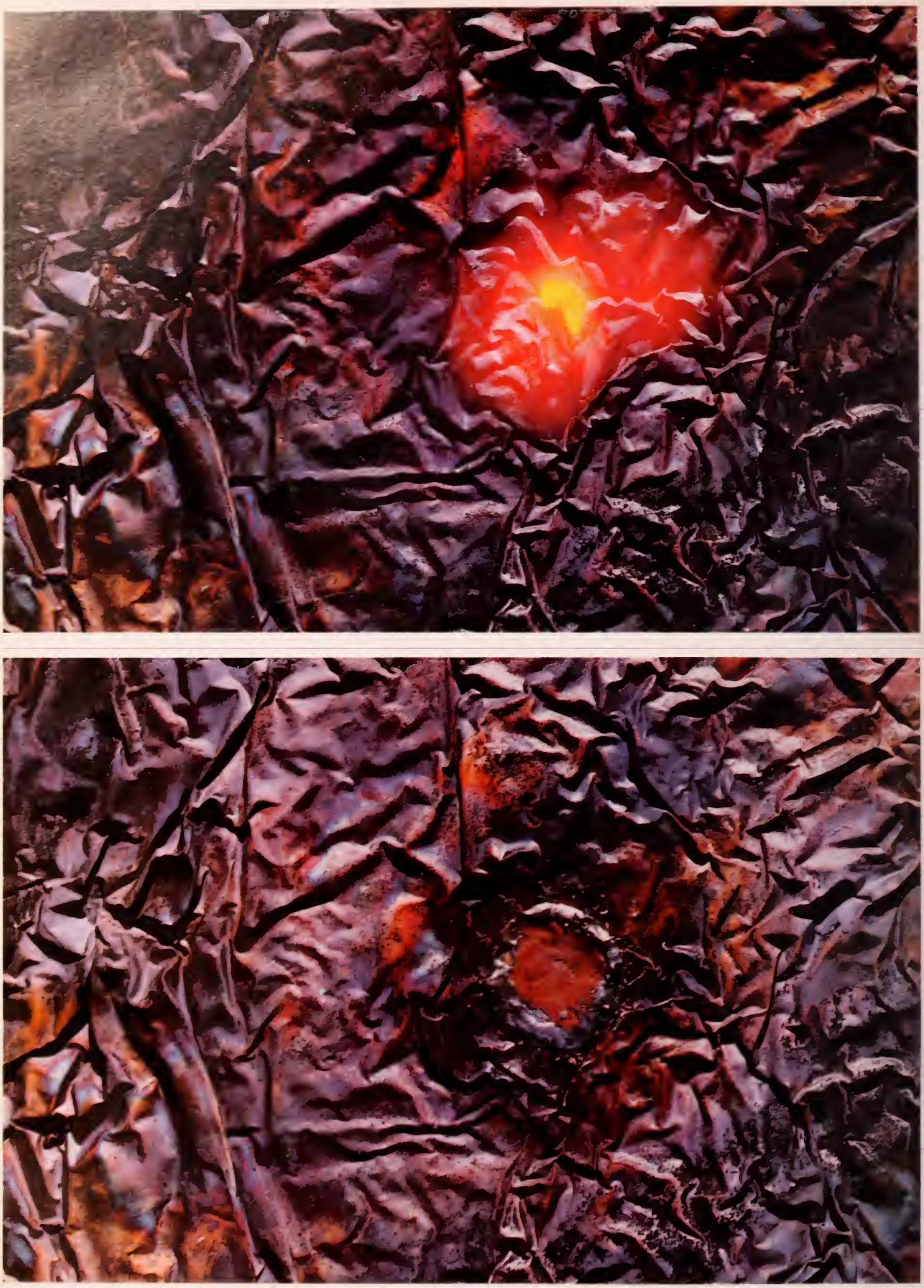
References: 1. Clinical report on file, Medical Department, A. H. Robins Co., Inc. 2. Schiller, I. W., & Lowell, F. C.: New England J. Med. *261*:478, 1959.

for nasal decongestion **Dimetapp® Extentabs®**

in sinusitis, colds, u.r.i., up to 10-12 hours' clear breathing on one tablet

PHARMACEUTICALS · RESEARCH

A. H. ROBINS CO., INC., RICHMOND 20, VA.



The illustration: To dramatize the pain and trauma and healing of the peptic ulcer, our photographer burned a "lesion" into crumpled metal with a blowtorch and photographed it, then repaired the damage and rephotographed the result — the "healed" ulcer.

ulcer under repair

"What results can I expect in my ulcer patients?" Shown below is a tabulation of 795 ulcer patients, reported by 69 investigating physicians, in which glycopyrrolate was the anticholinergic employed. They represent a cross section of ulcer patients of all ages, both ambulatory and hospitalized, under various regimens, from all sections of the country.

Note the pattern of results. Robinul showed an "excellent" or "good" response in over 83% of patients, and Robinul-PH provided similar results in 81%.

As for side effects, these often troublesome extensions of anticholinergic action such as dry mouth, blurred vision, etc., were evaluated as "moderate-to-severe" in only 6.7% of a total of 1705 patients in preliminary investigative studies, 795 of whom are the ulcer cases tabulated here.

We invite you to try Robinul in your own practice. We believe you will find it one of the most effective agents you have ever used for the management of the ulcer patient.

Robinul® (formerly Robanul)
Each tablet contains glycopyrrolate, 1.0 mg.

Robinul®-PH (formerly Robanul-PH)
Each tablet contains glycopyrrolate, 1.0 mg.; and phenobarbital (¼ gr.), 16.2 mg.

Robinul® at work

Brand of glycopyrrolate, Robins

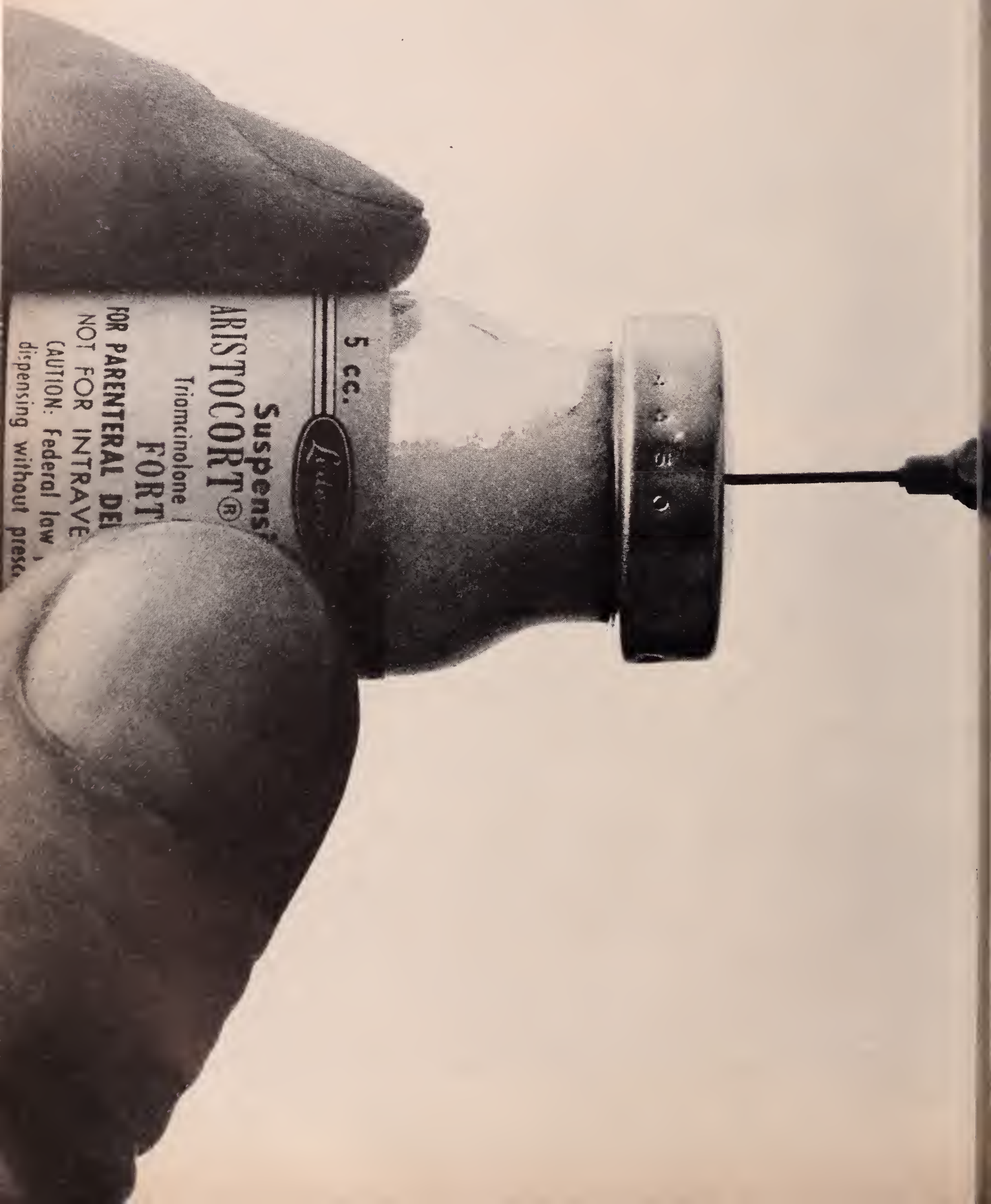
results with Robinul and Robinul-PH in 795 ulcer patients, from 69 clinical investigators*

DIAGNOSIS	ROBINUL					ROBINUL-PH				
	*No. Patients	Excellent	Good	Fair	Poor	*No. Patients	Excellent	Good	Fair	Poor
Marginal Ulcer	11	3	3	3	2	1	0	1	0	0
Pyloric Channel Ulcer	6	3	1	0	2	2	1	1	0	0
Pyloric Ulcer	4	2	1	1	0	1	1	0	0	0
Gastric Ulcer, bleeding	3	1	2	0	0					
Gastric Ulcer	48	31	11	1	5	12	5	7	0	0
Gastric Ulcer, penetrated	1	0	1	0	0	1	1	0	0	0
Gastric Ulcers, multiple	1	1	0	0	0					
Duodenal Ulcer	494	220	195	48	31	99	41	38	13	7
Duodenal Ulcer, bleeding	38	19	15	3	1	2	1	0	1	0
Duodenal Ulcer, obstruction	13	4	3	1	5					
Duodenal Ulcer, perforated	5	2	1	0	2	6	0	3	1	2
Gastric and Duodenal Ulcer	4	2	2	0	0					
Peptic Ulcer, unspecified	25	19	4	0	2	18	8	7	2	1
TOTALS	653	307	239	57	50	142	58	57	17	10
		83.6%					81.0%			

*Clinical reports on file, A. H. Robins Company, Inc.

A. H. Robins Co., Inc.
Richmond 20, Virginia

when your patient needs
a potent steroid... simplified control
of subacute or chronic disease...



New Aristocort® Forte

TRIAMCINOLONE

Diacetate Parenteral Suspension Lederle

potent repository steroid action with single or infrequent injections intramuscular—intra-articular—intrasynovial

Single doses several times the usual daily oral dose can control symptoms for several days, or even several weeks in responsive conditions... Total amount of steroid required is often less than with oral forms, thus minimizing side effects... Administration through a small-gauge needle means less patient discomfort... plus the special advantages of triamcinolone.



INTRAMUSCULAR USES: Asthma and other allergies, including allergic rhinitis, hay fever, drug reactions; rheumatoid arthritis and other musculoskeletal conditions; dermatoses, including poison ivy, urticaria, atopic eczema, pruritus, and psoriasis.

INTRA-ARTICULAR/INTRASYNOVIAL USES: Rheumatoid arthritis, bursitis, peritendinitis, ganglia, intermittent hydrarthrosis, epicondylitis and related conditions. May be used in any accessible joint except the intervertebrals. It may also be injected directly into areas of such localized inflammations as myositis and fibrositis.

ARISTOCORT Forte Parenteral – a suspension of 40 mg. /cc. of triamcinolone diacetate micronized in: polysorbate 80 USP... 0.20%; polyethylene glycol 4,000 USP... 3%; sodium chloride... 0.85%; benzyl alcohol... 0.90%; water for inection q.s.... 100%; hydrochloric acid to approx. pH 6.

Not For Intravenous Use – Usual Parenteral Steroid Precautions Apply

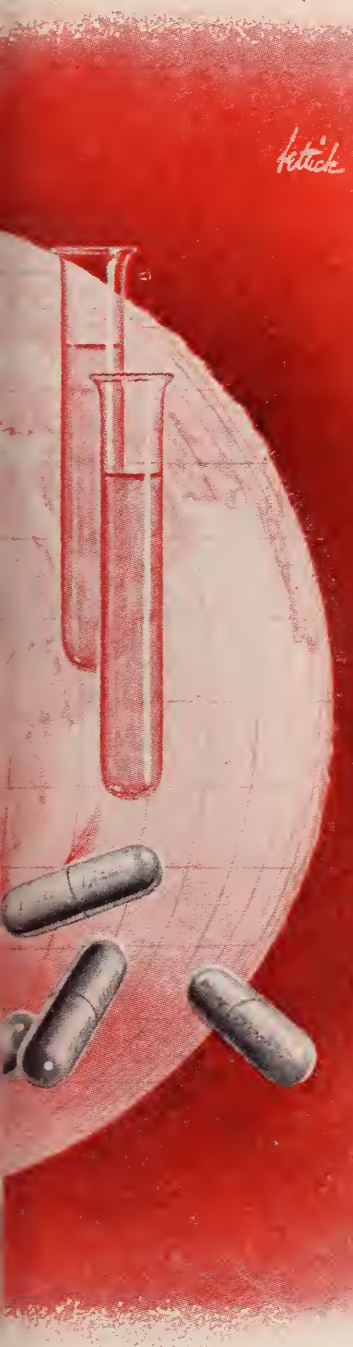
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A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.



from boutonneuse fever in Africa

Whether treating boutonneuse fever, bronchopneumonia, or a host of other infections, physicians throughout the world continue to rely on the effectiveness, relative safety, and exceptional toleration of Terramycin in broad-spectrum antibiotic therapy. This continuing confidence is based upon thousands of published clinical reports and successful experience in millions of patients. *The next infection you see will more than likely be "Terra-responsive."*



IN BRIEF The dependability of Terramycin in daily practice is based upon its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using. *More detailed professional information available on request.*

Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

to bronchopneumonia in Illinois

BRAND OF OXYTETRACYCLINE

Terramycin® capsules • syrup • pediatric drops
intramuscular solution • intravenous

also available with nystatin as TERRASTATIN® (capsules and oral suspension)

"The first prescription I ever wrote was for 'Empirin' with Codeine...



and it is still my stand-by for pain relief today."

PICTURE THE YOUNG DOCTOR with his first private patient, about thirty-five years ago. This is the moment, after years of study and guidance in classroom and at hospital bedside, when he assumes the full weight of responsibility for the well-being of his patient. He makes his diagnosis. The patient is in considerable pain, and his first concern is to relieve this discomfort. He writes a prescription for a new analgesic, a convenient drug combination that he believes will be of help. This patient (and many others to follow) finds gratifying relief, and the physician continues to rely upon this medication as the years go by.

Could this have been you in the 1920's? That was when 'Empirin' Compound with Codeine first came into general use (although plain 'Empirin' Compound has been well-known since the influenza epidemic of 1918). Satisfaction through the years has prompted doctors everywhere to depend on 'Empirin' with Codeine for relief of most all degrees of pain. For with this well-tolerated, reliable analgesic combination you can be sure of results, and feel secure in the fact that the liability of addiction is negligible.

Please accept our thanks for continuing to place your trust in a product that has been used more widely in medicine each year for the past four decades.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE*

Acetophenetidin, gr. 2½
Acetylsalicylic Acid, gr. 3½
Caffeine, gr. ½

Remember there are now four strengths available...

*Warning—May be habit-forming.
Subject to Federal Narcotic Regulations.

No. 1 — gr. ⅛
No. 2 — gr. ¼
No. 3 — gr. ½
No. 4 — gr. 1



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WITH YOUR
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AND

DEXEDRINE®

brand of dextro amphetamine

SPANSULE®

brand of sustained release capsules

she's losing weight

'Dexedrine' *Spansule* capsules not only control appetite all day long, but at the same time encourage normal activity. This is particularly important because overweight patients are often inactive. In such patients 'Dexedrine' overcomes lethargy, helps renew their interest in doing things—not just eating.

PRESCRIBING INFORMATION

INDICATIONS AND DOSAGE: For the following indications, the recommended daily dosage is one or two 'Dexedrine' *Spansule* capsules, usually taken in the morning: control of appetite in weight reduction; depressive states; alcoholism. In narcolepsy, the recommended daily dosage is up to 50 mg. of 'Dexedrine' by 'Spansule' capsule on arising.

SIDE EFFECTS: Insomnia, excitability and increased motor activity are infrequent and ordinarily mild.

CAUTIONS: Should be used with caution in patients hypersensitive to sympathomimetic compounds; in cases of coronary or cardiovascular disease; and in the presence of severe hypertension.

CONTRAINDICATIONS: Hyperexcitability; agitated pre-psychotic states.

SUPPLIED: 5 mg., 10 mg. and 15 mg., in bottles of 30. (Each capsule contains dextro amphetamine sulfate, 5 mg., 10 mg., or 15 mg.)

Prescribing information adopted January 1961.

Smith Kline & French SK&F *Laboratories*



Kills pain.....stops tension

For neuralgias, dysmenorrhea, upper respiratory distress, and postsurgical conditions—new compound of Soma, phenacetin and caffeine kills pain, stops tension, reduces fever—gives more complete relief than other analgesics . . . acts fast, relief lasts four to six hours

Composition: 200 mg. Soma (carisoprodol), 160 mg. phenacetin, 32 mg. caffeine. **Dosage:** 1 or 2 tablets q.i.d. **Supplied:** Bottles of 50 apricot-colored, scored tablets.

Also Available As
SOMA COMPOUND + CODEINE

Soma Compound boosts the effectiveness of codeine. SOMA COMPOUND + CODEINE therefore contains only ¼ grain of codeine phosphate to relieve the more severe pain that usually requires ½ grain. Otherwise, its composition—and dosage—is the same as Soma Compound. Supplied in bottles of 50 white, lozenge-shaped tablets.

soma® Compound

CSO-5163

WALLACE LABORATORIES/Cranbury, N.J.

Photographs courtesy of R. H. Grekin, M.D.

Nummular eczema



Nummular eczema on the left hand of a 20-year-old female. Therapy with 0.25% Neo-Medrol Acetate, Veriderm produced this result in only 5 days.



5 days ater



The topical steroid with the "bonus" base

Neo-Medrol Acetate, Veriderm and Medrol Acetate, Veriderm provide prompt, highly-efficient control of dermatoses. Because the Veriderm base duplicates the oils found in normal human skin, there is optimal dispersion of the anti-inflammatory Medrol content, and the antibiotic, neomycin.

Less greasy than ointment, less drying than lotion, Neo-Medrol Acetate, Veriderm and Medrol Acetate, Veriderm spread evenly and merge well with the tissues.

Medrol Acetate, Veriderm is indicated in atopic, contact, or seborrheic dermatitis, and in neurodermatitis, anogenital and allergic pruritus. Neo-Medrol Acetate, Veriderm is indicated when dermatoses are complicated by infection. Prompt control of excessive tissue reaction to allergens, irritants, and trauma may be anticipated following the topical use of Medrol.

Neo-Medrol* **Veriderm****
Acetate

The Upjohn Company, Kalamazoo, Michigan **Upjohn**

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For every kind of pruritus—for adults or children—safe, fast-acting CALMITOL Ointment soothes itching on contact, helps prevent secondary trauma caused by scratching. And low-cost, conservative CALMITOL is non-sensitizing. CALMITOL Ointment is available at all pharmacies in 1½ oz. tubes and 1 lb. jars. For more stubborn pruritus, CALMITOL Liquid in bottles of two fluidounces.
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CALMITOL®

for anything that itches



Perhaps this should be cleared up once and for all. There are *no* lemons in Vi-Daylin. If you've ever tasted Vi-Daylin, this might surprise you. Certainly, it would surprise the youngsters. To most of them, Vi-Daylin is liquid lemon candy, and that's *that*. But if it's deception, it's sensible deception. You never have to badger the kids into taking their vitamins. Nice to know, too, that this matchless matching of candy essence and color elegance can be found in all the forms and formulas of Vi-Daylin.

VI-DAYLIN—Vitamins A, D, B_1, B_2, B_6, B_{12}, C, and Nicotinamide, Abbott; VIDAYLIN-M—Homogenized Mixture of Vitamins with Minerals, Abbott; VI-DAYLIN-T—High Potency Multivitamins, Abbott.

Remember, there are *three* liquid formulas: Vi-Daylin, ViDaylin-M® (with minerals), and ViDaylin-T® (therapeutic). And if patients get a little owlly and won't touch *anything* in a spoon, you can give them the new Chewable (please see back of this page).

Each delicious, 5-cc. teaspoonful of Vi-Daylin supplies the following proportions of the Minimum Daily Requirements of:

		MDR (Children)	MDR (Infants)
Vitamin A	0.9 mg. (3000 units)	1	2
Vitamin D	10 mcg. (400 units)	1	1
Thiamine HCl (B_1)	1.5 mg.	2	6
Riboflavin (B_2)	1.2 mg.	1⅓	2
Ascorbic Acid (C)	50 mg.	2½	5
Nicotinamide	10 mg.	1⅓	2

Also supplies cyanocobalamin (B_{12}) 3 mcg. and pyridoxine Hydrochloride 1 mg.

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Gentlemen,

My family enjoys your chewable vitimans. It seems like we can not get enough of your vitimans. My sister enjoys your vitimans so much that she ask for more but cannot have no more. I like them because my mother does not have to worry about scolding us when taking it. Its good because you don't have no worries about something falling on the floor. If you kept on making these vitimans all the worlds children would be happy again. Now I would like to know whether I may have any information on the Middle West You all my class and I are studying it. So if the informatio can be given I thank you very much.

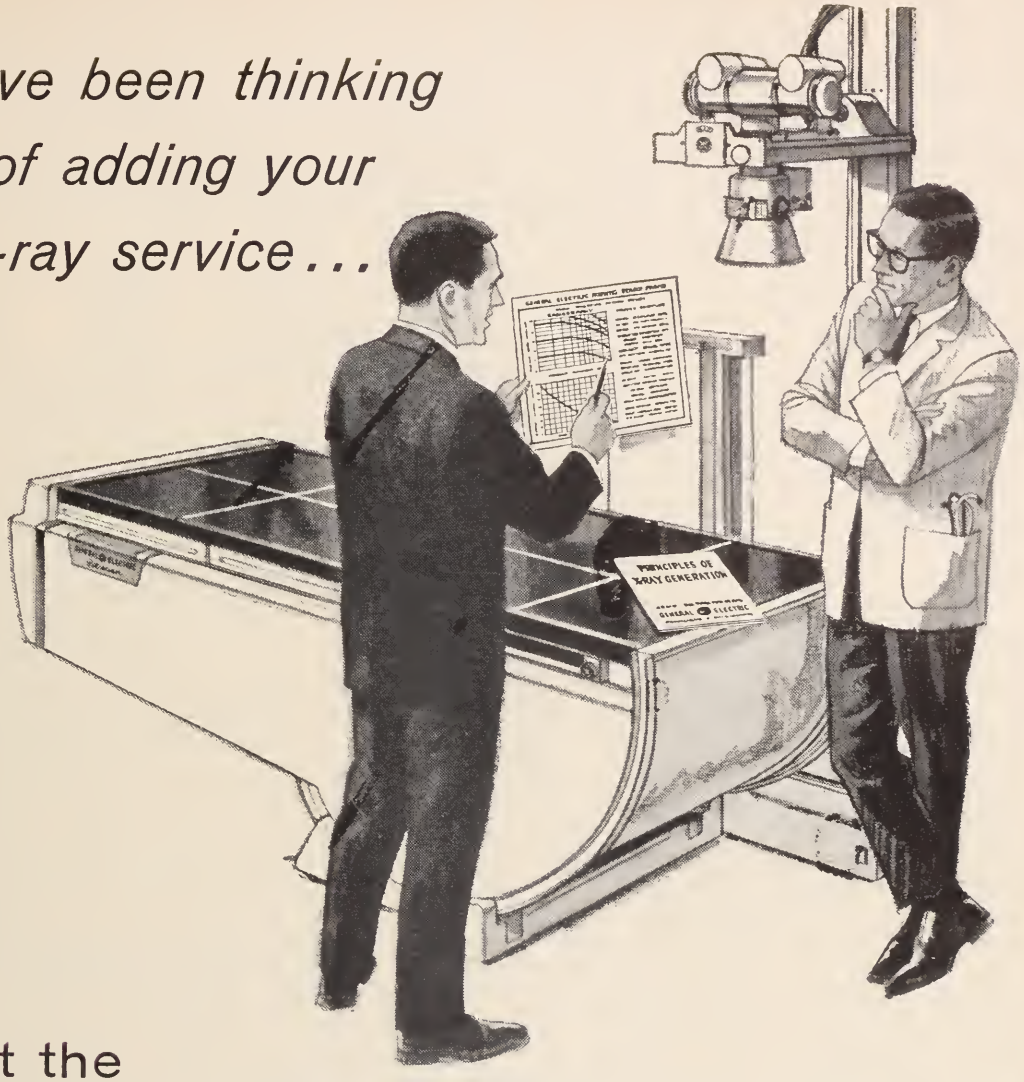
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(an unsolicited testimonial from an actual letter)



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Why does SARDO so effectively relieve[1-5] dryness and itching in so many patients with eczematoid dermatitis, atopic dermatitis, senile pruritus, contact dermatitis, soap dermatitis, diabetic dry skin, neurodermatitis?

These are the reasons . . .

HIGH QUALITY SARDO is the **original, exclusive,** high quality water-dispersible bath additive oil.*

IMMEDIATE DISPERSIBILITY
SARDO promptly disperses millions of microfine globules uniformly throughout the bath water; no unsightly oil slicks as with certain other bath additives.

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ECONOMICAL In addition, the cost per application of SARDO is low – for only **one** capful per bath is required for therapeutic effect.

PLEASANT Unique pine scent, non-sticky, non-sensitizing, SARDO assures patient cooperation.

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Also available: SARDOETTES, disposable compresses impregnated with SARDO, for topical application in relieving skin dryness, itching, scaliness in the same conditions as listed for SARDO.

1. Borota, A., and Grinell, R. N.: J. Amer. Geriatrics Soc., 10:413, 1962. 2. Spoor, H. J.: N. Y. State J. M., 58:3292, 1958. 3. Lubowe, I. I.: Western Med., 1:45, 1960. 4. Weissberg, G.: Clin. Med., 7:1161, 1960. 5. Lieberman, W.: Amer. J. Proctology, 12:374, 1961.

* Pat. Pend. T.M. © 1962 by Sardeau, Inc.

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There are probably certain medications which are special favorites of yours, medications in which you have a particular confidence.

Physicians, through ever increasing recommendation, have long demonstrated their confidence in the uniformity, potency and purity of Bayer Aspirin, the world's first aspirin.

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GRIP-TIGHT CAP
for Children's
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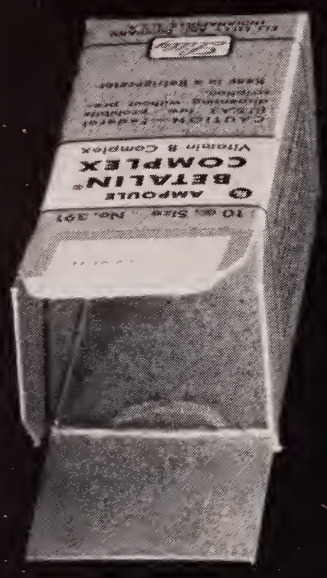
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the case of the missing ampoule

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The ILLINOIS Medical Journal

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Danger— do not open on Christmas



Norman J. Rose, M.D., *Springfield*

Play is a Child's World and Entertainment, but it also serves to stimulate the growth of his physical, mental and social abilities. For this reason, a careful selection of playthings — especially at Christmastime — is an important part of parental responsibility.

Toys should stir the imagination, encourage creative ability, and train the child for better living. Parents should not assume that toys are frills for children. They are a vital contribution to their growth, necessary all 12 months of the year and not just on Christmas morning. Some toys serve their purpose in a child's growth and are abandoned, but many toys have a long-span appeal, and continue to hold interest all through childhood.

Children should not be over-burdened with toys that require constant adult supervision, that encourage dependence on the parent because they are too complicated or because they are not suitable for this child today. Toys should be selected which are appropriate to the a) age, b) interest, and c) mental and physical abilities of the child.

In purchasing toys, the adult should read the tags, booklets, and brochures which many enlightened toy manufacturers are putting out today. In a few words they usually give a sound course in child development. Wise selection of toys is not enough. Some parental teaching or supervision is a second important step. An air rifle, archery set, dart game, sharp knife or chemistry set may become dangerous in the hands of children too young to understand the hazards involved. Even older children should have adult supervision with play equipment of this type.

Chief, Bureau of Hazardous Substances & Poison Control, Illinois Department Public Health, Springfield, Illinois.

Source of this material was supplied in part to this department by the National Safety Council, with permission to use at our discretion.

Babies and toddlers invariably follow the rule, "from hand to mouth" for everything they handle, hence care should be taken to see that they do not play with small toys, marbles, coins beads, or any small object, as well as playthings which have parts which may become loose and find their way into the mouth. Stuffed animals with button eyes, which may become loose, whistles with removable mouth pieces, pull-toys with small removable parts are all dangerous. Nearly 600 children under five years of age die each year as a result of suffocation by ingested small objects. Parents should see that playthings are sturdy and well made. Cheaply constructed or breakable toys will come apart or be broken under strenuous child play, leaving jagged edges which may cause cuts and infection. Playthings with sharp edges or pointed ends should be avoided. Toys should be bent a little to see whether bending a lot by the 4-year old will destroy it.

Electrical toys of any type are unsafe for very young children. For older children, only those which bear the seal of approval of the Underwriters' Laboratories should be selected. Children should be taught how to play with all electrical toys. Electrical play equipment should be inspected regularly for frayed cords or any defect which may cause shock. Children should be reminded never to play with electrical equipment with wet hands or damp clothing.



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Storage of play equipment is an important matter which parents should consider while a child is very young. Serious falls often result because playthings are left on steps, stairways, walks, or in the yard or home. If a proper place is provided by parents for storage of toys, such as a toy chest, or open shelves within reach of the child, and the child is taught to put away playthings when play time is over, many serious falls will be avoided. The habit or orderliness developed by supervision early in life will carry over into later life.

The National Safety Council, as a result of studies on Toy Safety, indicates that some of the more hazardous toys which have caused fatalities are bags, buttons, balloons, bullets, bows and arrows, sharp and pointed objects, and toys which break apart easily. From this list, it is obvious that toys which can be mouthed by small children such as buttons, plastic bags, rattles, and balloons are apt to choke or suffocate, and that for young or old, any weapon which shoots is a hazard and should be used with respect if at all.

Christmas time also brings hazards from Christmas trees and other decorations, such as **Christmas Tree Bubbling Fluid** — containing methylene chloride; **Fireplace Colors** — made of metallic salts (copper, barium, selenium, lead, thallium, arsenic and antimony are common ones) which produce vari-colored flames when thrown into fireplace; **Snow Sprays** — with the danger of inhalation of propellants which are halogenated hydrocarbons (methylene chloride, freons); **Icicles** — metallic foil streamers usually containing a mixture of metallic tin and metallic lead; Holly Berries; Candles, Defective Electrical Cords on Christmas tree lights or other decorations, etc.

Another hazard of the holiday season is the danger due to the large amount of aspirin used by adults during this season, frequently leaving the container in reach of small children (aspirin is the cause of one-third of all accidental poisonings in children in the age group four years and under).

Christmas-time should be a happy time — Let's keep it that way by giving special attention to toy safety and avoiding the hazards associated with Christmas decorations.

"An M.D. Looks at Today's Foods . . ."*

Selected papers

Nutrition and Food Technology Symposium

Presented September 26, 1962
Lake Shore Club, Chicago

Sponsored By
Chicago Section, Institute of Food Technologists
Chicago Nutrition Association
Committee on Nutrition, Illinois State Medical Society



**Title theme and running commentary from paper presented at Symposium by Paul A. Dailey, M.D., Chairman, Committee on Nutrition, Illinois State Medical Society.*

Nutrition, Technology and Health

Food Ties the Triad



PHILIP L. WHITE, Sc.D., *Chicago*

WE ARE HERE TO EXAMINE our role as physician, nutritionist, or food technologist in preventing and alleviating current and forecasted health problems that are affected by diet. To direct our energies intelligently, we should all have the same panoramic view of these problems. To focus attention on nutrition, medicine, and food science, the vantage point can be located by triangulation. I suggest that the vantage point is, indeed, food. Food ties the triad.

The U. S. public's health status must be considered good today. So long as there is room for improvement, however, it is not good enough! No one can dispute that the contributions made by the physician, nutritionist, and food technologist have been greatly instrumental in bringing us to our present high plane of health. But, we cannot claim all of the glory.

The control of infectious diseases in our country is a truly major accomplishment. Except in certain restricted population groups, ravages of infectious disease on infants and children are hardly visible. Of course, the capacity to withstand the debilitating effects of infection is directly related to nutritional status.

Benefits derived from the application of the principles of nutrition and the improvement in production, processing, and distribution of food are not always easily pinpointed. Decreasing morbidity or mortality rates reflect, in part, these benefits. Because most of the conquered diseases were of multiple etiology, several disciplines were involved. Frequently the approach included improved nutrition through education, modern agricultural practices, efficient distribution of food, and fortification or enrichment of certain common foods.

Forty to fifty years ago goiter, pellagra, beriberi, and rickets were common diseases in the United States. Even as recently as 1935, we had reports of 3,543 deaths from pellagra and 261 deaths from active rickets. Improvement in the supply and distribution of food, wise selection of certain foods for enrichment and for-

Secretary, Council on Foods and Nutrition, American Medical Association.

"The doctor's look at today's foods might be said to be the result of his knowledge or ignorance of biochemistry. In part, he is the victim of the year he graduated from medical school."

tification, extra dietary vitamin therapy, and extensive programs in nutrition education have virtually eliminated these diseases. Isolated cases are still to be found, of course.

The triad — nutrition, medicine, and technology — has been effective, too, in improving health in infancy and early childhood. In 1900, for instance, the infant mortality rate was 162.4 per 1,000 live births; now it is 25.2. The infant mortality rate for the Chicago white population in 1961 was 23.9. It was 36.8 among the non-whites. The reduction of mortality rates of children between the ages of 1 and 4 years can also be credited to nutritional advances and to infectious disease control. The mortality rate of children from age 1 to 4 years in 1900 was 19.8 per 1,000; now it is less than 1 per 1,000! This I will leave to Doctor Scrimshaw in his paper, "Interrelationships Between Nutritional Status and Disease Resistance."

In many parts of the world, malnutrition and infectious disease take a heavy toll from children in the "under 5" age group. This is especially true in many tropical countries where the combination of calorie and protein deprivation and infectious diseases is common. The lack of technological development and exploitation throughout the entire food chain in these countries, the frequent complete dependence upon single family, minimum crop agriculture, and a low level of medical care create the problem. The pediatrician struggles merely to keep the sick child alive. Tuberculosis, pneumonia, and the diarrheas can be disasterous among children with little nutritional reserve. The health team in these countries seldom includes the food scientist, yet he holds one of the keys to the ultimate solution of many health problems. A high infant mortality rate can often be a symptom of the disease of ignorance and technological underdevelopment. When these symptoms are alleviated, however, others present themselves.

Contrast the pediatric problems in less well developed countries with our own. Here we can debate whether rapid growth is desirable, whether high intake of protein is better than moderate or low intake, and whether the kind of fat and carbohydrate in the youngster's diet influences significantly his later resistance to or development of vascular disease. Pediatricians in research can now turn their attention to conditioned metabolic disturbances.

The great decline in infant and child mortality and an unprecendented number of births have significantly changed the age distribution of our population. The population under age 21 in the United States has grown since 1950 from 53.7 million to 74.4 million at the end of 1961, an increase of 39%. Food has played a role in establishing the fact that these children, especially the male children, achieve their adult growth as much as five years sooner than did their grandparents!

The increase in birth rate coupled with a lengthened life span has so increased our total population that many are expressing concern about our ability to provide sufficient food. Consequently, the success of our triad in the past has precipitated problems for the future. Doctor Mehrlich must have thought a great deal about this while preparing his symposium contribution, "New Horizons in Nutrition Through Food Technology."

We have passed through a truly marvelous era which began about the turn of the century. Both the sciences of nutrition and food technology have gained recognition. Early food technologists were concerned primarily with the prevention of food spoilage; their early methods were limited and crude. The early food technologist was a man with a broad experience but very little scientific training. Today's food scientists are highly trained chemists, biochemists, microbiologstis, or bochemical engineers. These men are far better equipped to solve the problems of the future than were their predecessors. Nutrition, too, has progressed during the past sixty years. This is obvious from the scope of the current definition developed by the Council on Foods and Nutrition of the American Medical Association.

> Nutrition is the science of food, the nutrients and other substances therein, their action, interaction and balance in relation to health and disease, and the processes by which the organism ingests, digests, absorbs, transports, utilizes, and excretes food substances. In addition, nutrition must be concerned with certain social, economic, cultural, and psychological implications of food and eating.

The very rapid advances realized in recent times may have spoiled the public. It has come

to expect spectacular news from science and medicine. The homemaker takes her convenience foods for granted as she plows with sheer abandon through the more than seven thousand items in the supermarket. The doctor's office — to many — is merely an immunization center. The man on the street shares the vocabulary of the lipid chemist. The American public is more conscious of health than ever before and realizes that nutrition is important to the achievement and maintenance of health. The public is hopeful, with good reason, that the major diseases such as cancer, heart disease, and arthritis, will soon be conquered. This interest and enthusiasm is good on the one hand; on the other, it promotes and encourages food faddism.

There are health problems that plague us today that really ought not be problems at all. The poor nutritional status of some of our young people — especially of teen-age girls — and obesity in all age groups are frustrating. Dr. Margaret Ohlson can vouch for this from her many studies of dietary patterns and the effect on our population's health. Nutritional anemias are unnecessary in this country. I'm sure you can think of other problems.

Physicians, nutritionists, and food scientists must work together even more closely. Cooperation from product promotion people must be encouarged.

The physician must pay more attention to the principles of nutrition. First, he is obligated to obtain and apply the necessary information regarding the composition and uses of food. In the past, he has shown very little interest in food as it affects health. There is much to be desired in the relationship and communications between the medical profession and the food industry. We must work toward improvement! Doctor Dailey's paper, "An M.D. Looks at Today's Foods," will give us an insight through the eyes of a physician who is concerned about nutrition.

Let us take a hard look, too, at the food scientist. What are his responsibilities? Is the food scientist more concerned with the food than with the ultimate consumer of that food? Food is to nourish. Regardless of its indefinite shelf life, its packagability, its gimmick promotability, its ability to be produced by a continuous process, its crunchability — if it doesn't provide superior nourishment — the food scientist should give up and try again. The nutritive value of new foods is of the utmost importance; how often is it the last assay done by the food scientist? Perhaps, the food scientists need to learn and apply a little more nutrition. Doctor Morgan will review the current situation in his paper "Food Technology and Nutrition Today."

The nutritionist and biochemist have been shunning a few responsibilities as well. Let's not allow the other biological sciences to lose sight of the whole organism. Thousands of scientists are studying individual enzymes, cells and segments of cells, nuclei and fragments of nuclei — I hope somebody can put humpty-dumpty back together again.

I feel that much of our nutrition education is far too complicated and subject to inaccuracies due to individual interpretations. The layman is so deluged with details he sometimes forgets that *foods* are the sources of nutrients and not the nutrients. Milk and orange juice are often so confused. How many times have you heard nutrition educators talk about "essential foods" or "fattening foods?"

In order to prevent and alleviate current and future health problems that have nutritional overtones, the triad of medicine, nutrition, and food technology will have to be tied more tightly. One important approach, then, is for the three members of our triad to learn more about the contributions that each has made and is prepared to make toward the eradication of health problems. Food can tie the triad.

• • • • • • • • • • • • • • • • • •

"The science of nutrition, like biochemistry, has made tremendous strides in the past 25 or 30 years, growing from a recognition of deficiency diseases, obesity, and diets for pathologic states to an understanding of the nutrients and the action of water."

Dietary Patterns and Effect on Nutrient Intake



Margaret A. Ohlson, Ph.D., *Iowa City, Iowa*

After the Second World War, it became apparent that the death rate from coronary artery disease was increasing in this country and a diverse program of research was stimulated to identify the causes, and, hopefully, find a cure for this affliction.[1] The diet was soon implicated.[2] Population studies recorded overweight as a common finding and overweight, or at least the dietary practices and inactivity which resulted in overweight, seemed to result in greater susceptibility to coronary infarct, particularly for the adult male. Certain of the blood lipids, of which serum cholesterol concentrations seems to be a fair index, were found to be high in patients who have suffered coronary artery disease.[3] Moreover, population samples from the United States as compared with similar samples from groups throughout the world, would suggest that a large proportion of young adults have serum lipid concentrations higher than those found among the peoples of technically underdeveloped societies.[4] Unfortunately, many of the peoples with the lowest blood lipids subsist on from a half to two thirds of what the North American eats and evidence for nutritional deficiency disease is widespread particularly among the children, many of whom do not survive the preschool years.[5] How much lack of adult vitality contributes to the slow economic development of many of these countries is not known but undernutrition is known to depress blood lipids.

It has been demonstrated that the blood lipids can be changed experimentally by diet. The feeding of cholesterol results in higher serum cholesterol values,[6] as does the ingestion of highly saturated dietary fat; i.e., butter, hydrogenated oils, beef and other animal fats.[7] Conversely, omitting much of the fat in the diet lowers serum cholesterol, at least temporarily, and feeding of polyunsaturated vegetable or marine oils causes a lowering, particularly when the original concentration was high, which seems to persist as long as these fats are ingested.[8]

Recently, it has been shown that limiting protein to a low maintenance[9] intake and the omission of most of the sugar in the diet also serve to lower serum cholesterol.[10] If all of the above research is to be accepted, a diet based on cereals, fruits and vegetables with only minute amounts of animal protein is needed if elevated blood lipids and, by inference, coronary artery disease is to be avoided. At this point it is necessary to distinguish between elevated blood cholesterol, the deposition of lipids in the arterial wall resulting in narrowing of the lumen, and thrombus formation. Although elevated blood lipids usually are present in cases with advanced atherosclerosis and are thought to be a major factor in the development of this condition, little is known of the mechanisms of thrombus formation which occurs at the mo-

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ment of the "heart attaek". Loading with certain fats, particularly butter and egg yolk,[12] has been shown to deerease clotting time but the spontaneously developing thrombus has a different structure than the test tube elot and may or may not be activated by the same faetors.

There have been few population trials of a vegetable diet ingested in amounts suffieient to prevent defieieney disease. Although the laetovegetarian Trappist monks have lower blood lipids than their meat eating Benedietine brethren, the incidenee of cardiovascular disease does not seem to be different.[11] A similar relationship between diet and blood lipids has been found in Polynesian villages. The group consuming large amounts of saturated vegetable fats, in this ease eocoanut oil, had an elevation of serum eholesterol when compared with inhabitants of a village eating a diet of mixed fats. In neither village was eoronary disease a problem.[12] It should be noted in passing that the relationship between blood lipids and eoronary artery disease depends on population statistics and is much less eonvineing when used to evaluate the status of individuals or small groups living under similar eonditions of diet.

Needless to say, an essentially vegetarian diet is far different than that of North Ameriean tradition and is generally unaceeptable to the average member of our sociсty. Reeent experiments conducted in New York[8] and Chicago[13] have attempted to gain the acceptanee of a modified version of this diet with, however, strict limitations on the amounts of animal proteins and fats allowed. Within the last year, the Ameriean Heart Association[14] has published a series of diets at two calorie intakes whieh are patterned after the New York and Chicago plans. The "filled milks" have had wide acceptanee for infant feeding on the assumption that the polyunsaturated fat of oils fed early in life will delay early disease of the coronary arteries.

The concept that diet has a direct relationship to the increased rate of coronary disease of this generation assumes that our diets have changed since the latter part of the 19th century. The arterial damage of coronary disease develops slowly and it is presumed that a dietary effect would be a function of time. It is pertinent to examine the changes in diet which have occurred and what they mean in terms of nutrients. Two types of evidence are available though neither is as eomplete as one might wish.

Estimates of food available in retail channels per eapita of population ean be found in the reports of the U. S. Department of Commeree[15] and, for reeent years, the U. S. Department of Agrieulture[16] (for the period from 1889 to the present). Certain well marked trends ean be identified.

The eonsumer supplies of two basie sourees of stareh, i.e., cereals and potatoes, have deereased sharply. At the same time, the form of market cereals has ehanged from bread flour to highly proeessed bakery produets and the prepared type of breakfast eereal. The per eapita supply of refined sugar has increased from 50 pounds per man per year to about 100 pounds. Sinee about 1926, refined sugar has been eonsumed at this rate plus or minus about 5 pounds. When a large meal of highly refined carbohydrates is ingested, absorption is rapid and, since earbohydrate storage is limited and use depends on activity, mueh of the absorbed earbohydrate is converted to body fat to be released for energy as needed. The released fatty acids appear to be saturated and high concentrations of both serum eholesterol and triglyeerides have been reported in populations eating large amounts of sugar[10] and following high sugar feeding on an experimental basis.[17]

Vegetable oils, as a market produet, were not important until early in this century. By the mid fifties, some 20 pounds per capita per year were available, about a third of which entered commercial ehannels as oil, the rest being marketed as margarine or shortening (both of whieh can be assumed to have been hydrogenated). Total consumption of fat is difficult to evaluate because of the unknown factors of eooking and table waste but would seem to have increased somewhat. Butterfat entered market channels at the rate of 17.3 pounds per man per year in 1939 but had deereased to less than 10 pounds by 1952.

People in this country have always eaten as much animal protein as they could eommand and pay for. Absolute estimates of consumption are difficult since before 1940 home production of poultry, milk and eggs, as well as some home slaughtering of other farm animals augmented the supplies measured by market inventories and must have contributed appreciably to the food available to rural families. Market supplies

of meat appear to follow economic cycles rather than to show any real trend over the past 70 years, particularly if one studies yearly fluctuations. On the other hand, supplies of poultry have increased more than 12 pounds per man per year since 1940.

Market supplies of milk, expressed as fluid equivalents of milk but excepting butter, have increased and an appreciable portion of the increase can be attributed to the manufacture of evaporated milk, dried milk, cheese and ice cream. Since the last war, market supplies of eggs have almost tripled.

No competent nutritionist questions the high nutritive value of milk and eggs nor the contribution which small amounts of these foods make in improving the balance of nutrients supplied by a mixed diet. Nevertheless, whole milk and eggs are being omitted from many diets. These foods are concentrated in the nutrients needed for growth but to a lesser extent for adult maintenance. Both are high in cholesterol and saturated fatty acids and the lipids of both are readily absorbed. Short time concentrated experiments have shown that serum cholesterol is increased and blood clotting times decreased with large doses of lipid containing fractions of these foods.[18] Ergo, milk and eggs are bad and should be eliminated. Unfortunately, the industry and nutrition educators have contributed to this conclusion when they have sold not only milk and eggs but many foods on the argument that if a little is good, more must be better. It is characteristically American that we go from a feast to a famine concept without stopping to see if there is a middle road. Perhaps it is time that we rethink our philosophy concerning these foods and use them in relation to their very real values both in nutrition and in cookery.

The last group of basic foods which make up our diets are the fruits and vegetables. Here the role of the family garden before 1940 is difficult to assess. Certainly commercial production and processing has increased the variety of vegetable food available to the consumer and has greatly extended the season of perishable products. However, it also has increased the cost. Total civlian consumption of fruit reached a peak in the early nineteen thirties but by the mid fifties was only about 70 per cent of the peak year. Per capita market supplies of vegetables with the exception of potatoes, sweet potatoes and dry edible beans increased about 20 per cent from 1909 to the mid forties and has provided about 300 pounds per man per year since then including both the canned and frozen products. Since the war, family gardens have become less popular so that the failure of the vegetable supplies to increase since this time may actually represent a decrease in consumption in the summer months.

One of the best estimates of the nutritive values of the ration described was computed by McCann and Trulson[19] for 1909-13 and 1958. The average adult eats 200 fewer calories, about the same amount of protein, 9 per cent more fat and about 20 per cent less carbohydrate than at the turn of the century. In both periods about 10 grams per day of polyunsaturated fatty acids were estimated to be eaten. Most of the increase in total fat was in the monounsaturated fatty acids, so that the ratio between the polyunsaturated and the saturated acids remained about 1 to 2.2. About 6 per cent of the fat calories were polyunsaturated in the late nineteen fifties as compared with 8 per cent in the earlier period.

A similar calculation of the fatty acid constituents of the staff diet as served at the State University of Iowa Hospitals yielded similar values; about 6 per cent of the fat calories were polyunsaturated. A twenty-one day sample of the staff diet was analyzed directly using gas chromatography and 8 per cent of the fat calories were found to be linoleic acid with a negligible amount of other polyunsaturates. Calories were found to average 3000 per man per day with 40 per cent of fat calories.[20]

There is not much support in data of this sort for the assumption that an imbalance in the proportions of saturated and polyunsaturated fatty acids in the diet have had an important bearing on the increase in coronary disease, nor is there evidence for significant increases in intake of cholesterol. The only striking changes in the national diet are in the reduction and form of carbohydrate used and an increase in the total fats ingested.

Diets based on ratios of polyunsaturated to saturated fatty acids of 1 to 1 or more as recommended by the American Heart Association must be regarded as therapeutic in the same sense that drugs are used in the treatment of disease and it becomes important that these

diets do not reach the general public through all sorts of communication media. It is equally important that the less scrupulous members of the food production industry be discouraged from production and marketing of processed foods designed to increase the intake of polyunsaturated fatty acids without suitable controls. No population has lived on full calories and the amounts of polyunsaturated fatty acids potentially possible. It would be wise to limit this experiment to the therapeutic diet prescribed by the physician until it is clear that the incidence of coronary disease will decrease as a direct result of this regimen.

Another approach to the study of diet as a causative factor in coronary disease is to observe what the individual man selects from the available food supply. In 1953, 146 families chosen at random from all economic levels were followed in Lansing, Michigan, for the entire year.[21] Records of all food entering the home and all individuals eating were kept and evaluated weekly on the basis of nutrients available per adult male. Correction was made for inedible waste but not for table waste. This was a period of full employment and good income. Calories were supplied at 108 per cent of the Recommended Daily Dietary Allowances and nutrients at from 102 to 154 per cent. Although we do not know how this food was divided among the members of the family, there is a temptation to accept these figures as evidence of a good diet. There is considerable discrepancy, however, in the degree to which the standards are met for the different nutrients and even allowing for moderate table waste, the total food consumed was generous. Some families, of course, had less food than others. A further study of these families revealed that multiple vitamin-mineral concentrates were used regularly by certain families especially those with high nutrient intake from food sources and, when the multiple fortified milk appeared on the market, the same families changed their milk orders to include the new product.[22] There was nothing in the health histories of these families to indicate that dietary fortification was indicated nor that other families were less healthy because they did not buy and, in most cases, the products were purchased and taken without benefit of medical advice.

It is difficult to evaluate the results of this behavior without being able to study the life history of the population. Overeating with respect to calories is generally accepted as a poor health practice and from a third to a fourth of the adults were overweight. There is a substantial amount of evidence accumulating that the fat soluble vitamins which are readily absorbed but excreted with difficulty can accumulate in the body and create well defined clinical problems. Huge doses are involved in the reported clinical cases but almost nothing is known of the end results of a life time of moderate overindulgence or of the sort of imbalance which tends to develop between intakes of nutrients when self medication is attempted. Availability of some nutrients in the pure chemical form is the stimulus for unrestricted enrichment rather than proven need. In addition to establishing desirable intakes of a variety of nutrients, the Recommended Daily Dietary Allowances assume a balance of ingredients. It is this factor of balance and the lack of information of its importance which is one of the best arguments for a diet obtained from natural foods.

Coronary disease is less common in the young adult female than in the male, a fact usually attributed to differences in estrogen function. Young women, however, eat much less food than the males of their own age and social group. Recent studies from our laboratories[23] measured intakes averaging 3100 calories per day for the man and 2100 calories for the woman in the 20 to 25 year age bracket. The men obtained 4 per cent more calories from fat and about the same percentage of calories from protein as the women. All known nutrient requirements were met in amounts at least equal to the Recommended Allowances. All subjects were active and were considered healthy. The only difference in serum lipids was a slightly lower percentage of β lipoprotein in the women's blood than that of the males. Though percentages of calories supplied by fat and protein did not differ greatly, the absolute intakes of fat were 55 per cent higher and, of protein, 30 per cent higher in the men.

One additional difference in diets was measured in a tendency among the men to eat hugely at the evening meal and to piece during the course of the evening so that the bulk of

the day's intake was taken over a period of 4 to 6 hours. The women, on the other hand, tended to spread their intake throughout the day and evening so that even an occasionally missed breakfast did not greatly interrupt the pattern of smaller meals and snacks distributed over 12 hours or more. If this is a general pattern of eating among men and women of the relatively privileged socio-economic groups being observed, a simple redistribution of calorie intakes during the day could provide lower and more consistent clearance loads of all nutrients in the case of the men. Cohen[24] has found higher blood lipids in men following 3 large meals than when the same food was divided into many servings distributed throughout the day.

Men and women 40 to 70 years of age, chosen from the same community, tended to eat regularly spaced meals. Though dinner was a heavier meal than breakfast or lunch, there was not the concentration of calories ingested late in the day that was characteristic of the younger man.

These adults, all of whom were essentially healthy, lived in a community with excellent medical serivces. All were able not only to buy adequate food but to command regular medical advice and care. Certain interesting adjustments in diet had been made. The women were eating an average of 2100 calories and the men 2400. The percentages of calories from fat were not different than found in the younger group but the older men had increased the percentage of calories from protein from 17 at age 20-25 to 21. Again, these diets met the standards for intake of nutrients though they included a minimum of vegetable food. There was the usual amount of overweight among this group though all except one very obese man were making more or less successful efforts to control weight gains.

The studies chosen for discussion are from populations with incomes adequate to buy food to satisfy appetite and taste. Overeating and the consequences thereof are the most serious nutritional problems of our people and much overeating represents extra portions of food of high nutritive value. It is doubtful, for instance, that men between 40 and 70 years of age need 125 grams of protein but this was the average intake in the studies quoted and could only have been obtained by large intakes of meat, milk, and eggs since fish and even poultry have limited acceptance in this midwest community.

When evidence of poor diets is found, it is among those who cannot buy the expensive foods of high nutritive value, those who are uninterested, usually because they are uninformed or badly informed, and the teen ager who rejects the traditional food of a good diet, for a time, as he rejects most of the mores of his elders. In recent years, a fourth group may be added, the very elderly who do not have the mobility to get to the store and carry home a heavy sack of groceries.

The adult individual who can secure it, eats animal food, fats of all kinds, sugar, and a certain amount of fruits and vegetables but rejects the potatoes and bread in an effort to maintain weight. Of these food groups, the starches are the only classification which apparently can be eaten without restriction and not cause an increase in the blood lipids. An interesting side light to the role of cereals and potatoes as food may be found in experiments in our laboratories which are still in progress. When starch was substituted for sugar in a diet constant in other components, the satiety values were so great that all subjects would have lost weight if allowed to eat as much as they preferred and all complained bitterly of feelings of being "stuffed" even after four weeks on the regimen. The satiety value of bread and potatoes in place of desserts and candy should be explored by those seeking to maintain weight.

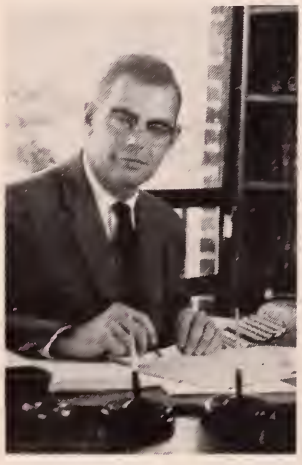
In summarizing the results of 8 years observation of more than 5000 adults at Framingham, Kagon and his associates[12] comment that if there is a factor in our diets which causes an elevation of the blood cholesterol and which, in turn, leads to the development of atherosclerosis, this may be a factor which has a threshold level which is exceeded by our population. It might be suggested that there may be a combination of such factors since, as has been pointed out, many components of the diet when used in test amounts over short periods, serve to change the concentration of serum cholesterol. Moderation in diet is not difficult to achieve but it involves a reevaluation of food intakes with each decade of living since man's food needs are not constant throughout the life span. This is not the place to discuss the role

of activity but it may be suggested that the physically active person can enjoy the pleasure of eating longer than the one who subsides into the rocking chair.

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Nutritional Status and Infectious Disease



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I. Introduction

Any balanced discussion of "Nutritional Status and Infectious Disease" must consider not only the effect of infection on nutritional status, but the effect of malnutrition on resistance to infection. Nutritional status does influence susceptibility to infectious disease and is a very important part of the interrelationship between nutrition and infection. It is not always recognized, however, that all infectious diseases have some detectable adverse effect on the balance of nitrogen and certain other essential nutrients. In studies carried out at the Institute of Nutrition of Central America and Panama (INCAP), it was shown that even tonsillitis, otitis media or a small staphylococcal abscess caused a decrease in nitrogen balance in young children.[1] The very mild viral infection following vaccination against smallpox[2] and immunization with the 17D-strain of yellow fever vaccine also produced detectable changes.

". . . the doctor has not always had the time, incentive or pressure exerted on him to translate the remarkable findings of the biochemist to the practical betterment of his patient."

Whether or not the metabolic effect of an infection is of clinical or public health significance depends largely upon the degree of nutritional adequacy of the patient at the time the infection is acquired. Although readily detectable in well nourished individuals, the phenomenon may be of no practical consequence. However, in persons who are already in a precarious nutritional state it can set off a fatal chain of events. Such an occurrence is, of course, most common in technically underdeveloped areas.

Exactly the same considerations apply to the clinical and public health significance of those experimental studies and field observations showing that resistance to infection may be influenced by nutritional status.[4] It has been firmly established by other experimental studies and epidemiological observations that a severe degree of deficiency of almost any of the essential nutrients may markedly alter the host response to the presence of an infectious agent in the environment. There is abundant evidence that the same infection may be inapparent or mild in a well nourished individual and virulent and even fatal in a person who is severely malnourished. On the other hand, mild degrees of malnutrition may have no detectable effect whatever on resistance mechanisms.

Whether speaking of the deleterious effect of infection on nutritional status or the decrease in resistance to infection due to malnutrition, the simultaneous presence of malnutrition and infection may have far more serious consequences for the host than either alone. This kind of relationship between malnutrition and infection can be classified as *synergistic*. Sometimes, when the infectious agent is highly dependent upon metabolites from the host cell for its survival and reproduction, a specific deficiency interferes more with the reproduction of the agent than it does with the normal functioning of the host. This has been demonstrated experimentally with some viral infections and certain of the protozoan infections in which the organism is primarily intracellular.[4] Under these circumstances the interrelationship between nutritional status and infection can be spoken of as *antagonistic* since the nutritional deficiency inhibits rather than favors the spread of the infection.

There are no known situations where antagonism makes malnutrition resulting from an inadequate or unbalanced diet of net benefit to the human host. Natural nutritional deficiencies are rarely of the degree of severity and specificity required to demonstrate antagonism, but they are nearly always synergistic with the secondary bacterial infections which are the most common complication and cause of death in diseases of viral origin. It should be noted, however, that many chemotherapeutic agents, including sulfonamides and antibiotics, act by interfering with the use of a nutrient or one of its metaboltes by the infectious agent.

In general, synergism is the usual result when the predominant action of a nutritional deficiency is on the structure or function of the host and antagonism when the deficiency has a greater impact on the infectious agent itself.

II. Mechanisms of Interaction

A. Synergism

1. *Effect of infection on nutritional status.*

While relatively little is known of the metabolic effects of infection on other nutrients, it is well established that infectious stress affects nitrogen balance by increasing the excretion of nitrogen in the urine. When severe diarrhea is present or the deficiency is severe enough to influence gastro-intestinal function, absorption is also reduced to some extent. Decreased dietary intake due to anorexia or actual intolerance to normal quantities of food are also important. In addition to these biological mechanisms, the social and cultural interrelationships are often of equal clinical and public health

importance. Of major significance in some situations is a tendency during an illness to adopt therapeutic diets which are high in carbohydrate and relatively low in protein and total calories. This is particularly unfortunate at a time when the patient requires large quantities of essential nutrients. In the case of preschool children in technically underdeveloped areas, such practices are very commonly involved in the chain of events which ends with a fatal episode of the severe protein deficiency, kwashiorkor.[5]

In the treatment of diarrheal disease, physicians, as well as parents, are often guilty of withholding solid food and adequate amounts of protein from a child with diarrhea. The elder Holt and co-workers as early as 1915 emphasized that protein and fat should not be withheld from the child with diarrheal disease even though absorption of these nutrients was reduced.[6] They emphasized that the amount of nitrogen and of protein-sparing calories absorbed was directly proportional to the amount fed, and that better clinical results were obtained from feeding children with diarrhea than from starving them. Chung and Viscorova reaffirmed this conclusion in a study of the management of diarrhea in Czechoslovakia in which some children were treated by full feeding and some by withholding solid food.[7] Current experience in technically underdeveloped areas support the wisdom of this recommendation.

Mothers in technically underdeveloped areas often administer a purgative to malnourished children developing diarrhea to rid them of the worms which are mistakenly believed to be the principal cause of the symptoms. This represents an example of a cultural factor associated with infectious disease that contributes to the worsening of nutritional status, and in this case, particularly to the development of kwashiorkor.

In the treatment of infection, other drugs are used which influence nutritional status by affecting the absorption and retention of essential nutrients.

For some time it has been recognized that in malnourished persons the adverse effect of stress on nitrogen balance is less marked than in those who are well nourished.[8] This has sometimes led workers to believe that the seemingly mild negative nitrogen balance in malnourished individuals resulting from infection is less serious than would be concluded from the experimental results obtained in studies of persons who are well nourished.

As has been demonstrated in well nourished experimental animals and in man, the stress of infection results in a relatively large increase in the excretion of nitrogen in the urine while an infection of the same apparent severity in a poorly nourished host produces much less response. This suggests some kind of a compensatory mechanism which helps the body to avoid losing protein nitrogen at a time when it is needed the most.

For many years the concept has been held that an infectious agent causes a so-called "toxic" destruction of protein by either damaging the cell so that it loses part of its protein or by destroying it altogether.[9] According to this hypothesis the increased excretion of nitrogen observed during infection, accidental and surgical trauma and sterile abscesses produced in experimental animals would be due to essentially the same phenomenon — damage to cells. It becomes somewhat harder to sustain this point of view, however, when the nitrogen losses which appear to result from psychological stress are sometimes found to be of the same order of magnitude.

Most investigators working extensively with the nitrogen balance technique in man have encountered unexpected periods of poor nitrogen retention in their subjects which could not be explained by detectable errors in the intake measurement, collection of urine and feces, or analytical procedures. Sometimes it has been possible to associate these variations with emotional crises in the life of the individual although the observations are so sporadic that they are not usually mentioned in print.

At a meeting of the New York Academy of Science in 1958, Dr. Ohlson described an interesting case of a woman who had been in satisfactory nitrogen equilibrium for many weeks on a daily intake of 1800 calories and one gram of protein per kilo.[10] During the week following notification that her son had been wounded in Korea, her nitrogen balance became strongly negative even though she appeared outwardly calm and continued on the same protein intake. When she received further word a week later that her son was out of danger, her balance became strongly positive for several days until

she had apparently made up for the nitrogen loss suffered during the preceding week. By extraordinary coincidence this cycle of loss and retention was repeated two months later under similar circumstances.

In the extensive nitrogen balance studies of INCAP in children recovering from the severe protein deficiency of kwashiorkor, similar periods of negative nitrogen balance were occasionally observed when a child became apprehensive or upset during the course of a balance period. Last Spring a formula-type diet was given to ten M.I.T. freshmen during three successive three-day periods when they were not under the immediate pressure of examinations. These studies were repeated under identical conditions of diet and sample collection during the week of final examinations. Nine of the ten boys showed a marked decrease in nitrogen balance due to increased nitrogen excretion in the urine during the examination week. In seven of the ten boys, the balance was actually negative during one or both of the three-day periods of that week even though their protein intake remained the same.

There is little doubt that direct destruction of cells occurs as the result of trauma and possibly from some infections also, but in such cases the "toxic" destruction or direct physical destruction may be of less significance in accounting for nitrogen loss than the endocrine effects of the stress. It is more probable that the consequences of either infectious or psychological stress and to some degree also of traumatic stress are the end result of increased adrenocorticoid activity and a consequent enhanced secretion of gluco-corticoids. These are known to be catabolic at the level of the muscle and anabolic at the level of parenchymatous organs.

In the well nourished individual nitrogen is apparently mobilized from muscle and other tissues in which it is less essential with the results that levels of nitrogen compounds in the blood plasma exceed renal thresholds. On the other hand, in the poorly nourished individual the tissues may be so depleted that any excess nitrogen, poured into the blood stream as a result of adrenocortical stimulation, is picked up so rapidly by deficient tissues that little urinary loss occurs.

If this concept is correct, then the magnitude of the response to infectious stress, as measured by the nitrogen balance technique, would depend not only upon the severity of the stress but also upon the nutritional status of the host. In other words, the effect of stress on nitrogen balance may be important even if most of the nitrogen does not leave the body since the catabolic phase of the stress reaction occurring at the level of the muscle must ultimately be followed by an anabolic phase in which nitrogen is restored to the tissues from which it was mobilized.

In a recent article, Holt and co-workers sharply criticized the concept of protein reserves as usually defined.[11] They maintain that these are not true reserves in the same sense that both body fat and glycogen serve as reservoirs of calories because the utilization of body protein in periods of stress and dietary deficiency represents protein malnutrition. In essence, the body is being forced to consume some of its own tissue.

A battle of semantics over the term "reserves" should be avoided, however. There is no doubt that the nitrogen of some tissues is more labile than that of others. When survival of the host is at stake, presumably some endocrine mechanism makes it possible to borrow from the less essential tissues for the maintenance of those functions which are most essential to life. When the crisis is past, extra protein is required to correct the depletion which has occurred.

An adequately nourished individual is not unduly harmed by short periods of stress which deplete him of protein, but a poorly nourished individual may be very seriously affected. Protein depletion in any person must ordinarily be corrected by dietary means if return to a normal state is to be achieved.

Nitrogen has been used as an example because it is by far the most studied of the nutrients, but there is considerable evidence that similar considerations apply to other essential nutrients. As early as 1892, Spicer in England noted that children with meningitis, infantile diarrhea, chronic tuberculosis, measles, whooping cough and severe chickenpox often developed xerophthalmia.[12] In Indonesia today, where diets are frequently low in vitamin A, infectious diseases, particularly measles, are recognized as precipitating causes of the xerophthalmia and keratomalacia which so commonly

cause blindness.[13]

Blood levels of vitamin A have been shown to be considerably reduced in children by pneumonia, rheumatic arthritis, acute tonsillitis and rheumatic fever.[14,15] In studies of the effect of smallpox vaccination carried out in Guatemala, one of the consistent effects was a decrease in blood serum levels of vitamin A.[16] Although vitamin A is not normally excreted in the urine, this may occur in certain pathological states including pneumonia, obstructive jaundice and chronic nephritis.[17]

In 1917, Hess called attention to the frequency with which children from low income families in New York City developed florid scurvy after contracting a febrile illness such as otitis, pneumonia or nephritis.[18] Even vaccination against smallpox was reported to have this effect in malnourished German children and recent INCAP studies have demonstrated a decrease in ascorbic acid blood levels and an increase of this vitamin in the urine during the peak of a primary reaction to smallpox vaccination.[2] While it is extremely unlikely that scruvy would be precipitated by infection in either North America or Western Europe at the present time, the ability of infections to worsen the ascorbic acid nutritional status of experimental animals and man still has public health significance in many parts of the world.

Among prisoners of war of the Japanese receiving thiamine-deficient diets, but showing no clinical manifestation of thiamine deficiency, infectious diarrhea very frequently precipitated severe and often fatal cases of beriberi.[19] Beriberi has also been described as developing in malnourished individuals as a result of the added stress of pneumonia or malaria. Circumstances still exist in parts of the Far East in which the effect of infection on thiamine nutritional status is of major importance.

Chronic infections are known to cause the so-called "anemia of infection" in which iron-binding capacity is reduced and the life span of the erythrocytes is shortened.[20] The effect is apparently mediated through the adrenal cortex and can be simulated in dogs by injection of adrenocortical extract of adrenocorticotrophic hormone (ACTH).[21] Adrenalectomy abolished the hypoferremia induced in the intact animal by the mild stress produced by taking blood samples or by administration of ACTH. Furthermore, in patients with chronic infection the bone marrow is unable to increase red blood cell production by the 50% needed to compensate for the shortened life span of the cell, whereas the normal individual is able to increase erythrocyte production 6- to 8-fold. In 28 cases of chronic infection accompanied by weight loss reported by Clark and co-workers[22] total hemoglobin was reduced to an average of 59% of values calculated from the normal weights of the patients.

Iron deficiency anemia associated with hookworm infection was formerly prevalent in the southern United States and is still a major problem in many parts of the world. Either an increased intake of iron or the elimination of the worms by treatment with anthelmintics will correct the anemia, but both measures employed simultaneously will do so more rapidly.

Both spontaneous respiratory infections and subcutaneous abscesses induced with turpentine have been found to precipitate megaloblastic anemia in monkeys maintained on a diet low in folic acid.[23] From a study of 27 patients in New York City with megaloblastic anemia, Luhby concluded that infection was a major etiological factor in the development of the syndrome in approximately one-third.[24] It is probable that anemia from this cause is more common in the United States than is presently recognized.

2. *Effect of nutritional status on resistance to infection.*

As previously mentioned, there is much evidence indicating that many different types of moderate to severe nutritional deficiencies lower resistance to many infections. There is a strong tendency to assume that the principal mechanism of resistance to infection is the anamnestic one; that is, the capacity of the body to form antibodies against specific organisms or their toxins. No doubt this is a very important component of resistance and both the primary and the secondary antibody response to an antigen may be impaired by severe nutrient deficiencies. This has been demonstrated for deficiencies of tryptophan, protein, vitamins A and D, ascorbic acid, thiamine, riboflavin, niacin, pyridoxine, pantothenic acid, folic acid and vitamin B_{12}.[4]

Some of the pioneer work in experimental

animals was carried out in rabbits by Paul R. Cannon at the University of Chicago twenty or more years ago.[25] He found that severe protein deficiency impaired the capacity to produce agglutinins to typhoid and paratyphoid. Whipple and Madden in Rochester also described the same results in dogs depleted of protein by a low protein diet and repeated plasmaphoresis.[26]

In Brazil, Budiansky and DaSilva have shown that children with kwashiorkor lose their ability to form antibodies to typhoid vaccine,[27] while in Mexico, Olarte and co-workers have obtained the same result with diphtheria antitoxin in children with kwashiorkor.[28] Studying a group of chronically ill adults in Philadelphia whose serum albumin levels were less than 4 gm./100 ml., Wohl and co-workers found the antibody response to typhoid vaccine to be significantly impaired as compared with individuals whose serum albumin levels were in excess of this figure.[29]

It must be recognized, however, that there is often not a direct correlation between antibody formation and resistance to infection. Both experimental animals and patients have been found highly resistant to certain infections although no increase in antibody titer could be demonstrated. Other examples have been reported in which very poor resistance to infection was encountered despite a marked antibody response.

Another defense against infectious agents is the reticulo-endothelial system. Leukocytes are, of course, particularly important in bacterial infections. From experimental and clinical studies Doan concluded that folic acid deficiency interferes with the production of phagocytes in mammalian bone marrow to such an extent as to nullify the effect of protective antibodies.[30] Others have had difficulty in maintaining folic acid deficiency in macacus monkeys because of frequent leukopenia, severe dysentery and death.[31] When fed a deficient diet, these animals develop a striking granulopenia accompanied by markedly lowered resistance to spontaneous infection.

Because severe protein depletion leads eventually to marked atrophy of the liver, spleen and bone marrow where most phagocytes presumably originate, it is not surprising that the normal production has been found to be inhibited in both experimental animals and man as a result of protein deficiency. From their work with rats Guggenheim and Buechler concluded that protein-deficient diets "invariably" impair leukocyte regeneration, an effect promptly reversed by adequate dietary protein.[32] Certainly children with kwashiorkor show little or no leukocyte response to superimposed infection and are extremely susceptible to infection.

Antibody formation and leukocyte activity come into play only when the infectious agent has entered the host; that is, after infection has occurred. Strictly speaking, they are not mechanisms which prevent infection, but ones which prevent or minimize the possible pathological effects of infection. One means of defense which is specifically involved in preventing infection *per se* is the integrity of the skin, mucous membranes, and other tissues.

There are a variety of pathological changes known to occur in tissues depending on the type and severity of the nutritional deficiencies. These include a) alterations in intercellular substance, b) reduction or absence of mucous secretions, c) increased permeability of intestinal and other mucosal surfaces, d) reduced fibroblastic response, e) keratinization and metaplasia of epithelial surfaces, g) loss of ciliated epithelium in the respiratory tract, g) nutritional edema with increased fluid in the tissues, and h) accumulation of cellular debris and mucous which provide a more favorable culture medium. The relative practical importance of these is largely unknown.

Experimentally, vitamin A deficiency has been most often related to tissue changes which favor the penetration of infectious agents. An increase in spontaneous respiratory infections in vitamin A-deficient rats and dogs parallels the metaplasia and keratinization of respiratory epithelium.[33,34] Weaver has demonstrated that the mucosa of parts of the gastrointestinal tract of cotton rats is more readily penetrated by poliomyelitis virus when the diet is deficient in vitamin A,[35] and *Salmonella* penetration of the intestinal mucosa has been shown to be enhanced by deficiencies of vitamin A, riboflavin or thiamine.[36]

In addition to these three well recognized mechanisms of resistance to infection, antibody formation, leukocyte response and tissue

integrity, there are a number of others of uncertain significance, each of which is potentially altered by malnutrition. The nonspecific protective substance in blood, peritoneal and other body fluids, often referred to as lysozymes, are decreased in experimental animals fed deficient diets. There is no agreement on their importance although they have been shown experimentally to inhibit the development of viruses as well as bacteria.

Properdin is a euglobin which occurs in the normal serum of all animals thus far tested and which appears to be associated with natural resistance to many diseases of bacterial, viral and even protozoan etiology.[37] Interferon is a recently isolated natural product of animal cells which apparently acts by uncoupling oxidation from phosphorylation so that glucose oxidation no longer yields sufficient ATP for virus multiplication although there is still enough for the needs of the cell.[38] Presumably the formation of either of these substances could be affected by malnutrition, but no experimental evidence is yet available to substantiate such a hypothesis.

Not all resistance to bacterial toxins can be explained by the formation of antibodies against them. Rats suffering from deficiencies of B-complex vitamins or vitamin A are more susceptible to diphtheria toxin than are adequately nourished controls even when antitoxin production is equal and the rate of disappearance of infected toxin comparable.[39] Similarly, the skin reactivity of scorbutic guinea pigs to diphtheria toxin is increased and survival time decreased.[40] It has also been found that rats deficient in vitamins A and D and in vitamin B-complex are 50 to 100 times more susceptible to tetanus toxin than control animals.[41] Both brief fasting and protein-deficient diets increase the susceptibility of mice to the endotoxin of *Klebsiella* pneumonia with fatal results a few hours after injection and long before an immune response would be expected.[42] This effect was abolished by 48 hours on a good diet. Little is known about the relative importance in man of this nonspecific resistance to bacterial toxins.

It is well established that protein and choline deficiency lower adrenal cortical function and that ascorbic acid deficiency is at least indirectly implicated in the activity of the adrenal cortex. There is no doubt that the resistance to infection of the Addisonian patient or the adrenalectomized animal is markedly diminished, but apart from the evidence that cortical hormones may have a direct inhibiting effect on certain bacterial endotoxins,[43] the mechanism of corticoid action in infection is uncertain. Similarly, the susceptibility of diabetics to infections, particularly those of a localized nature, is much better known than understood.

From the foregoing it is clear that there are a number of different mechanisms involved in resistance to infection and that these are affected by malnutrition in a variety of ways. The extent to which one or another of these mechanisms is of major importance in accounting for synergism depends on the infectious agent, on the nutrient deficiencies involved and the state of the host. This is simply another way of saying that the classical epidemiological triad of host, agent and environment are all involved in the causation of both infectious and nutritional diseases. Depending upon the predominating clinical signs, infection and malnutrition change places as the agent and the environmental influence, respectively.

B. Antagonism

A discussion of mechanisms would not be complete without some further mention of the nature of antagonism between malnutrition and an infectious agent. It is not difficult to explain the fact that severe specific deficiencies of individual nutrients, especially when these are accentuated by the use of metabolic antagonists to the nutrient involved, are found experimentally to decrease the severity of some viral and intracellular protozoan infections, as well as to increase the consequences of invasion of the host by rickettsia, bacteria or helminths. Antagonism occurs most commonly when the organisms are no longer able to get the specific metabolites which they need because the metabolism of the host cells has been altered by the deficiency involved.

The examples of antagonism between malnutrition and systemic helminths have essentially the same explanation. The only example of antagonism between a nutritional deficiency and an intestinal helminth infection, the effect of phosphorus and calcium deficiency on *Ascaridia galli* in the chicken, appears to involve the specific requirement of the worms for substan-

tial quantities of these nutrients.[44]

In a recent comprehensive review of this subject,[4] 16 examples of antagonism between a specific nutritional deficiency and a viral infection were noted among the 50 experimental studies of the relationship between malnutrition and viral infections which were cited. Only 3 of 114 studies involving bacterial infection report antagonism and no examples of antognism between rickettsial infection and malnutrition occurred among 12 research reports.

III. Practical importance of the relationship between nutrition and infection

Approached from a global point of view, the synergism between nutrition and infection is largely responsible for the high mortality from infection in technically underdeveloped areas. For example, measles is an almost universal disease in all unisolated populations. In the United States and Europe many children died from measles 50 or more years ago. Today measles is seldom fatal in these areas, a change which began before the advent of sulfonamides and antibiotics which can now control the bacterial complications of this and other viral diseases; furthermore these complications rarely develop in well nourished children.

In nearby Mexico, however, the mortality from measles per 100,000 of population was 164 times higher than in the United States and in Guatemala 228 times higher in 1956.[45] It is not the virulence of the virus which differs in these situations, but rather the lower resistance of the malnourished child. This can be verified by contrasting the severity of measles in upper and lower income families in technically underdeveloped areas.

In Guatemala, INCAP is giving milk and the low-cost protein-rich vegetable mixture, Incaparina, twice daily to all children under five years of age in a rural Indian village. In a second similar village it is providing only medical treatment and improving environmental hygiene without any kind of a nutrition program. A third nearby community is being studied as a control. Last year an epidemic of measles swept through all three towns, producing from 40 to 60 cases in preschool children. In the control village, 5 of the children died and in the so-called "treatment" village the fatality rate was similar. In the village in which the children were receiving the dietary supplement, there was only one death and this occurred in a child whose parents would not allow him to participate in the program. It has also been observed that episodes of infectious diarrhea in the children receiving supplementary food are of shorter duration and less severe.

The greatest number of observations of the effect of nutritional status on resistance have dealt with tuberculosis. Before the advent of recent chemotherapeutic techniques, tuberculosis was often a fulminating and frequently fatal disease. Well nourished persons also became infected, of course, but were somewhat less likely to have the disease in severe form. This contrast was striking at the Gorgas Hospital in the Panama Canal Zone in 1945. Tuberculosis was rare and usually mild in the large and well nourished North American population concerned with operating the canal and its services, and also among the Panamanians who were similarly privileged. However, in the Panamanian and West Indian laborers, it was an acute fulminating condition representing the leading cause of death at that time. To be sure the latter lived under more crowded conditions and were exposed more often and more heavily, but once the tubercle bacillus invaded the host, it behaved differently in the well nourished and in the poorly nourished individuals.

Orr and Gilkes found tuberculosis, rheumatoid arthritis and fatal respiratory infection to be much more common in an African tribe consuming a predominantly cereal diet than in one eating a considerable amount of milk and eggs. Furthermore, the addition of milk, meat and greens to the diets of the cereal eaters caused a drop in the prevalence and severity of these infections.[45]

In kwashiorkor, the principal cause of death is superimposed infection, but once the child has begun to respond to dietary treatment, this complication need no longer be feared. Because both febrile and leukocytic response to infection tend to disappear in kwashiorkor, the presence of intercurrent infection in this syndrome is not often recognized until a chest x-ray is taken or an autopsy performed.

At the time when clinical scurvy was still frequent in the United States, children with this

". . . doctors lacking knowledge of foods and nutrition have been unable to denounce the lies, false claims, and the humbug the public is subjected to by the food quacks."

deficiency had an increased incidence of such infections as adenitis, otitis and nephritis.[47] Pellagra has been associated with a more frequent occurrence of staphylococcal and streptococcal infections and Vincent's stomatitis.[48] As recently as 1955 Jelliffe reported a mortality of 30 per cent among malnourished African children with suppurative gingivitis in Vincent's stomatitis.[49] Hepatitis has also been reported to be more severe among undernourished African tribes.[50]

It was a common experience in prisoner-of-war camps in the Far East during World War II for severe amebiasis to be associated with periods of acute dietary privation.[51] Elsdon-Dew found acute fulminating amebic dysentery to be more common among maize-eating Bantus than among curry- and rice-eating Asiatic Indians and Europeans in South Africa consuming a balanced diet.[52] The mortality from malaria has also been reported to be significantly higher in malnourished patients.[53]

Only a few of the numerous examples of the serious clinical and public health significance of the synergism between nutrition and infection have been mentioned. In the United States and other highly developed countries, malnutrition is no longer so prevalent as to interfere with the resistance to infection of whole populations as it was as recently as 30 years ago in the southern United States and 50 or more years ago in the northern states, or as it is in most technically underdeveloped areas today. Similarly, the burden of diarrheal and other diseases has been reduced by better sanitation and medical care to the point where it is less often of serious nutritional consequence.

While mass malnutrition is certainly no longer common in the United States, it is by no means clear as to how many individuals are sufficiently malnourished so that the synergistic relationship between nutrition and infection is important to them. No one really knows how many elderly persons living alone and paying insufficient attention to proper diet succumb to bronchopneumonia and other infections which they could resist successfully if they were better nourished. There is no information as to how many of these people suffer from debilitation, osteoporosis and the like because the stress of chronic infection is superimposed on an inadequate diet. The total number of such individuals may be large.

Similarly, "crash diets" to lose weight or bizarre diets resulting from food faddism must often result in a degree of malnutrition sufficient to lower resistance to disease even in populations in which most of the people are well nourished.

How often do the unbalanced diets of teenagers reduce their resistance to infections at a time when physiological needs are increased by the pubertal growth spurt? Are some underprivileged children sufficiently malnourished to be more susceptible to infectious disease? Does infectious stress still bring about an unnecessary retardation in growth and development in some underprivileged children even in the United States? We need to find the answers to such questions by studies of the dietary intakes of vulnerable individuals. Studies showing a high family or *per capita* intake of protective and other foods in the United States do not supply data to answer these questions which concern individual dietary intakes.

In technically underdeveloped areas the synergistic relationship between malnutrition and most infections becomes a dominant part of the overall health problems. As long as one-fourth to one-half of all children born alive in a country die before 5 years of age, it becomes apparent that there is synergism between malnutrition and infection.[54] In most of these countries a very high priority in health programs should be given to nutrition. This state of affairs is not indicated in the vital statistics available. When the causes of death in young children were investigated in four rural Guatemalan villages during the years 1956 and 1957, only one death in 222 reported was listed in the offi-

cial records as due to malnutrition.[55] This was the only one in the series to die in a hospital and the only one for which the cause was medically certified. The field studies indicated that just over one-third of the deaths could be considered due to malnutrition, one-third to various types of gastrointestinal infections and one-third to respiratory diseases. Most of the deaths from malnutrition represented cases of kwashiorkor precipitated by an infection. Most of the deaths from infection would not have resulted from the same infections in well nourished children.

Unfortunately, so little emphasis is placed on nutrition in most schools in the United States and in most other countries that physicians, public health workers and food technologists often fail to think of nutrition as important in their own activities and programs. In technically underdeveloped countries, the U.S. trained physician, public health worker or food technologist, whether or not he is a national, tends to give too little consideration to nutrition even though it is a major problem.

IV. Summary

It is important to emphasize that the synergistic relationship between malnutrition and infection is an established fact, the importance of which varies with time, place and person. It was once of the same importance in the United States and Western Europe as now found in most technically underdeveloped areas. Today it is a major problem in the developing areas and a secondary one in the highly developed countries of the West. Even in the highly developed countries the total number of people for whom this relationship is significant in terms of health or even survival must reach the hundreds of thousands, even though whole populations are no longer involved.

Professional nutritionists or food science workers must keep the problem in its true perspective. Further improvement of already adequate diets or promotion of supplementary vitamin preparations to increase resistance to infection should not be urged. However, sight must not be lost of the fact that where diets are grossly inadequate or even borderline, the synergism between malnutrition and most infections is a major hazard to the health and productivity of the adult and to the growth and psychomotor development of the child.

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New Horizons in Nutrition Through Food Technology



H. A. Hollender, Ph.D., *Chicago*

"A Prophet," According to the Proverb, "Is Without Honor in His Own Country." It is possible that a prophet, forecasting "new horizons in nutrition through food technology" is also without honor — at least among food scientists and technologists. Trained as we all are to study the chemical, physical, microbiological, nutritional phenomena of food in relation to the processing, storage, transportation, and consumption of a wide variety of commodities, we have often seen the conspicuous effects that rather inconspicuous findings have had on food industry progress. But we have usually seen these effects *after the fact,* and hindsight is easier to apply than foresight — and safer. I shall indulge in a little of both — hindsight and foresight.

Below the surface of the inconspicuous findings constantly being reported from research and development laboratories, there are currents — one might say, undertows — that sweep us along. Thus, the first successful pastry mix initiated one of the strongest currents in the history of modern food science and technology — the flow of the food industry toward convenience foods. The week before the first successful venture into pastry mixes was made, no one perhaps could have predicted the immediate future of the mixes. The week after the returns on the market analysis of the first mix were in, most of us, perhaps, could have predicted the lines of development which lay open — and would have been willing to buy "futures" on this remarkable development. A few short years ago, "mixes" were a "new horizon." Already, they are an "old horizon" — one we can look back upon as we climb the mountain from whose summit we expect to see a "new horizon."

Well, with some reluctance, I find myself in the position of climbing that mountain and reporting to you what the "new horizon" looks like. I start out with the large presumption that I

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This paper reports research undertaken at the Armed Forces Food and Container Institute, U. S. Army Quartermaster Research and Engineering Command, and has been assigned number 2238 in the series of papers approved for publication. The views or conclusions contained in this report are those of the author. They are not to be construed as necessarily reflecting the views or indorsement of the Department of Defense.

am close enough to the summit to catch a glimpse of what lies beyond. This is indeed a large assumption but I believe that I can detect one feature of that "new horizon" quite readily — a world-wide desire *to provide the best nutrition possible to all persons at minimum cost.* With this broad definition of our new horizon before us, I would like to give you some of my thoughts as to what contribution food science and technology of the future can make and the possible nutritional implications of that contribution. Those of you who are experts in the field of nutrition can enlarge considerably on what can be seen on the horizon and can bring into sharp focus many more basic examples than I can offer. But since the Institute is charged with research and development incident to feeding the Armed Forces not only today but also for the future — wherever the Armed Forces may be and under whatever environmental or operational conditions may exist in the future — I have some right to join the ranks of the prophets. At the Institute we try to keep abreast of the scientific advances in foods and feeding in order to read their implications for keeping men of the U.S. Armed Forces physically and mentally fit. Research sets the guidelines toward future product development in industry and in our program it also serves this purpose. Our own and other work in the areas of psychology, nutrition, physiology, and food chemistry have given us the background for the initiation of new product development in the past. It will continue to do so in the future. We are already engaged in a number of efforts that require a new technology. As is usually the case, a new technology uncovers new problems, which only research can solve.

As in industry, the expected customer's needs (the G. I. in our case) are of primary importance in guiding research and development. Our present work on the freeze-dehydration of foods is a case in point. Although this is looking at an "old horizon," I think I should expand on this topic briefly. Some six years ago, when military tactics were drastically changed to meet the requirements of atomic warfare, it became apparent that conventionally canned foods — entailing skilled preparation in field kitchens, a great deal of cooking equipment, and refrigeration whenever possible — would not be the answer to the new challenge. We began to look for new preservation processes. Contract research results initiated by the Institute during the early 50's strongly suggested that the freeze-dehydration of food was practicable. The successful industrial drying of blood plasma and other pharmaceuticals showed the feasibility of the process, and our own experimentation and that going on in other laboratories have since confirmed our original optimism. I might mention that five to six years ago most major food manufacturers would not have considered this approach to food preservation as either feasible or practical. We now know this method of food preservation, which dehydrates food by removing the water while the product remains in the frozen state, retains the normal cell structure and flavor of the food for at least two years when properly manufactured and stored. The process yields almost ideal military rations. Presently a number of food companies have concluded that the process is practical; in fact, as you know, they have products on the commercial market. Although freeze-drying is an "old horizon", as I have said, it is actually a "new horizon" in military feeding. It will give the G. I. of the future hot meals (comparable in flavor and texture to those he would normally get at home) by only adding hot or cold water, as appropriate for the food, and waiting a few minutes. Extensive field tests are pioneering the application of these meals to simulated military situations of the future. I would like to recommend to you at this point, two publications of the QM Corps — *Freeze-Dehydration of Foods* (1961) and *Freeze-Drying of Foods* (1962). These two publications wrap up much of what is known today about the science, engineering,

"I believe that the nutrition story of the second half of the 20th century will be one of the most important landmarks in the cultural, social, and economic advance of our evolving civilization."

development, and production of freeze-dried foods.

An entirely new technology based on the preservation of food by means of irradiation is now coming over the horizon. Within the foreseeable future, radiation preservation will make it possible to supply whole hams and pork roasts to areas without refrigeration. It will also, we feel confident, extend the keeping qualities of such delectables as fresh strawberries so that they may be transported long distances without the usual losses during transit. A few years ago we were prematurely optimistic about radiation preservation. We were looking into the future, perhaps, through rose colored glasses. Today, we can see a bright new horizon, without any glasses at all. We believe that radiation preserved bacon, for example, will be a commercial fact before 1965.

Up to this point I have discussed freeze-drying and the radiation preservation of food in terms of old horizons and new. I shall turn now to a completely new horizon in military research and development as it relates to food and feeding — namely, eating under stress. This is a fascinating area of research — and a truly exciting "new horizon." For example, what does the stress of hunger do to a man? Well, from our research conducted on the Greenland Ice Cap we have found that when men are put on half rations, the effect of hunger plus environmental stress is ominous. The men exhibit extreme hostility to outsiders, are unable to maintain a stable pattern of work relationship, only grudgingly accept leadership, lose their initiative, and build up a smoldering resentment against their situation that could lead to mutiny. We are not yet ready to say whether some foods are better than others in preventing these negative attitudes but we have learned some interesting things about performance capacity in dogs under work stress that are beginning to show, vaguely, a pattern. Let me list them without, at the moment, suggesting their meaning as criteria for ration design.

First, dietary components of food, such as fats and cellulose derivatives reduce the capacity of dogs for long sustained work by as much as 50 per cent. Second, physical work capacity in dogs during periods of fasting (up to five days) *increases* — an unexpected finding, to say the least. Third, alertness and mental acquity *decrease* during fasting. In other words, though physical capacity improves, mental capacity retrogrades. Fourth, visual discrimination in dogs, after five days of fasting, is markedly disrupted.

Now, to pull these various findings together — as best we can at this early stage — it is indicated that rations must be considered not as the fuel, the kinetic energy, that, once unlocked, makes the human machine perform its mechanical labor better but rather as carriers of that mysterious kind of energy that makes the mental machine function in a controlled, effective manner. We know that for short periods men can perform as physical machines very well on limited rations — or on none. But mental acuity in a combat soldier is essential — and in the future, with the headlong race toward more and more sophisticated weaponry, how far a soldier can run in pursuit of the enemy will be a matter of only academic concern compared with how quickly and efficiently he can adjust a complex weapon to its task.

Go back to those half-starved test troops on the Greenland Ice Cap. In their state of mind, they could scarcely cope with a cunning enemy against whom the most modern weapons would have to be employed. It is possible, considering our findings with dogs, that their physical performance capacity might be quite high — for a short period. But that is not, and cannot be, the sole aim of our work. Knowing this we are presently guiding our work toward a new type of combat food packet, one which will provide at least 1,000 calories of energy in 8 ounces of food. This packet will provide the combat soldier with enough energy for short operations requiring considerable physical endurance where the need for great mental acuity is not imperative. We anticipate that additional nutritional research will make these 1,000 calories adequate for all activities for short period of time. In this packet, we must crowd more sustenance in less weight and cube than ever before in ration history. With no more than 1,000 calories, which is less than an average breakfast, we must provide the fighting man with a highly acceptable and nutritious food which will keep him in good fighting trim for several days. Through new technology now coming into being, we envision that we will be able to provide foods which will not be just the compressed bars

". . . well motivated and ethically disposed dieticians, nutritionists, domestic science teachers, home economists and food writers are doing a tremendous job among the people."

of old but a new type of food, with the flavor and texture of "natural" foods. We envisage something on the order of an expandable dehydrated meat and bread to provide a sandwich — and, knowing the G. I. — with "the trimmings:" mustard, ketchup, or even jelly in paper thin sheets.

The newest of new horizons is "foods for space." Considerable information has been gathered as to the effects of long periods of weightlessness, but we need more. The effect of stress, imposed upon the individual by long periods of confined spaces in close contact with other individuals, has been explored, but further study is required. Eating in weightlessness does not appear to impose any problems as long as the food does not crumble easily and can be placed in the mouth directly or while confined so as to prevent spilling and contamination of the space surrounding the individual. From our studies, and others, we know that the physical attributes of available foods take on unusual psychological significance under conditions such as found in space travel. They serve as anchors to reality. But what actually happens to men when exposed to these conditions for long periods of time (say beyond a month) is still under investigation. An equally challenging problem is — where will the food itself come from? The production of unconventional foods derived from algae, plant and animal tissue culture has been one of our most intriguing work areas in recent months. These may be our only means of providing the food for long space journeys. However, though these foods may provide the calories, will they also provide the nutrients? It seems possible to say that they will. For example, a carrot tissue can be grown in culture and it tastes like carrot. It is rich in protein and a fine source of fatty acids and other nutrients. Presently a 70-fold increase in weight during a five-day period is possible. But will this type of food be the *anchor to reality* that a space traveler might need on an extended journey? It will take a lot of simulated testing to find out.

Every prophet must have at hand some "indicators." The economic prophets have an easy time of it compared with the scientists and technologists. But there are a few straws in the wind for the food prophet. Basic information on the importance of odor and taste in food preference as well as appetite associated with stressful conditions is being developed. The psychological effects of extremely restricted diets are becoming a little more clear and so, too, the effect of food on small group dynamics. Flavor studies, using the advanced techniques of chromatography to define the important flavor attributes of natural flavors; texture studies suggest that ultimately we will be able to duplicate a variety of textures normal to food — such as the crunchiness of celery. Synthetic meats from man-made fibers, derived from vegetable sources and spun in much the same way as nylon and other man-made fibers, are presently within our power to make. The protein classification of flour so that the most nutritional factors from the wheat may be carefully controlled is indicative of what we may expect from that source. We have some capability now for growing a variety of animal and vegetable materials in culture. These are only straws in the wind, as I said. When we know enough about texture, about rehydration, about the stability of food constituents, about flavor, and about the interactions of the constituents of food we can embark on the most exciting venture in the history of food science and technology — the formulation of food to meet the needs of the flesh and the needs of the mind. This is no mean task and I regret not being able to describe this new horizon more explicitly.

But I can give you something more convincing than mere words. In the laboratory today, it is possible to produce a ham with all the color, odor, and flavor of a high-quality ham, but without the fat and bone. The texture of this ham can be so controlled that you can have it tender or quite tough, as in the days when "hard" ham was popular — and there are a few

people for whom this hard ham and the dark red gravy that could be made from it were "anchors of reality."

Once we know the nutritional requirements, it is certainly foreseeable that we can produce a food acceptable to any ethnic group in the world, a food capable of extraordinary shelf-life, a food that would be familiar — an anchor of reality. I think we food scientists and technologists will never wish to get too far away from "food realism" — 7,000 years of civilization have established some profound patterns of preference.

If, in fancy, I can now climb to the summit of this mountain from which I may view "the new horizon" let me say that complete food synthesis will one day be possible. I mean no less than this: that taking the elemental food components, carbon, hydrogen, and oxygen and a few other elements, we will one day bring them together without agriculture to form food.

In that day, only dimly to be seen on the "new horizon", complete nutrition, at minimum cost, for all the peoples of the earth, will be possible.

Since a prophet must be something of a poet, too, I would like to close with this little stanza whose author is unknown to me.

"I climbed a peak and at the crest
I looked beyond into the West
And there I saw a view sublime —
Another peak that I could climb."

The Corporate View of Nutrition



Daniel F. Gerber, *Fremont, Michigan*

We All Realize that Corporate Responsibilities require the individual business manufacturer to compete successfully for a share of the business in which he is engaged. In the food industry, a great deal of research has been directed toward the application of nutritional knowledge to specific products. We are concerned with the design and manufacture of food products which meet the specific needs of the consumer. Our function is to provide nutritive foods, safely and economically, in convenient and attractive forms. If we perform this service efficiently, we know our efforts will be rewarded with reasonable profits.

However, this independent and exclusive activity represents only a portion of the total corporate view of nutrition. Most business firms feel that they have a stake in the welfare of the public — certainly, this is true of the food industry.

Perhaps, the clearest witness to the food industry's view of nutrition can be seen in the organization and continuous support of the Nutrition Foundation. To quote from one of their publications: "The Nutrition Foundation was organized by food and related manufacturers in December, 1941, as a sincere expression of their interest in scientific progress and human health. The basic purposes of the Foundation are —

1. The development of a comprehensive pro-

President, Gerber Products Company; Chairman, Board of Nutrition Foundation.

"Medicine and the individual doctor should strive to help the professional nutritionists in their work."

gram of fundamental research, providing basic information in the advance of nutrition and

2. The support of educational measures that will assist in making the science of nutrition effective in the lives of present and future generations.

The early leaders of this organization recognized the need for increased support of basic research and education, but — more than this — they realized that the program should be wholly in the public interest, fundamental in character and in accord with the spirit and purpose of institutions of higher learning.

More than sixty major business firms have united in support of the Nutrition Foundation. More than six and one-half million dollars have been expended by the Foundation in support of basic research and education in accordance with these principles.

Thus, the *corporate* approach — that is, the viewpoint of the major food industries in regard to the science of nutrition — has become the cooperate approach. We believe that the best interest of the public and of industry can be served through collaboration and financial support of independent research in our institutions of higher learning. The competitive nature of business in the free world dictates a degree of secrecy and corporate security, which must be transcended when we deal with the science of food and its relation to life and health.

The science of nutrition has become too vital and too intricate to be nurtured by any one person or any one group of researchers. A single vested interest cannot possibly advance across the broad front presented by the many areas of research now known to be related to foods.

The role of fat in the diet and its relation to cardiovascular disease illustrates this point. Literally thousands of top-notch scientists and millions of research dollars have been devoted to unravelling this one problem, and yet we do not have all the answers.

There are endless other problems in the field of nutrition which will demand the same intensive research effort before we can know confidently that we are doing the best possible job in feeding our people.

We feel that we have to collaborate with others for another reason; scientists need the constructive criticism of others in their own disciplines and in other fields. Real advance comes most rapidly with the exchange of ideas. How many inventions are the work of only one mind? Has any scientific breakthrough ever come to a scientist unaided by his contemporaries?

We need a collaborative effort to effectively overcome the forces of the misinformation and to bring the facts of nutritional science into our schools, press, radio and television. Food faddism is a case in point.

This is an area in which the food industry perhaps has fallen down. We are told by those who have studied the problem that millions of dollars are squandered on unnecessary and exotic products through the influence of food faddism. The food industry has failed to bring to the attention of the public the full nutritional value of the staple food products now on grocery shelves.

This is a point that the Nutrition Foundation is working on right now. We are starting a campaign to enlist the support of food distributors in spreading the nutritional truth about our foods and, incidentally, trying to do what we can to bring back to the grocery store as much as we can of the estimated half a billion dollars spent annually for food fads. We are finding the distributors quite receptive.

We also need more money for expanded research activities. A real attempt is being made to broaden the base of our support by food manufacturers of all sizes.

The program has been supported by many suppliers to the food industry but we feel that there are many more who would be proud to be a part of the program if we could just get through to them how vital it is to people all over the world and to us as segments of the food industry.

Container manufacturers have been faithful members as have a great many others whose

products are essential to our products as they reach the consumer. We feel that manufacturers in the chemical field should be more fully represented particularly those in the food additive and chemical fertilizer lines.

In summary then, it appears obvious that the corporate view of nutrition is the same as that of any good citizen. We feel that we have a responsibility to the public, not only to supply good food products, but also to support nutrition research and education by unrestricted grants, wholly in the public interest.

I would urge those of you who are in a position to influence corporations in the matter of membership in the Nutrition Foundation, to do so.

Thank you.

(NOTE: Reprints of this Symposium are available to the membership at a cost of $1.00 each. Send order and remittance to Illinois Medical Journal, 360 N. Michigan Ave., Chicago 1, Illinois.)

New Retirement Tax Benefits for Physicians

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*Self-employed Individuals Tax Retirement Act of 1963, P.L. 87-792 signed into law by the President October 10, 1962; commonly known as the Keogh Bill.

Chemical contamination, a problem in our present technologic era, recently has gained wide national attention through Rachel Carson's best selling book Silent Spring, *and even more recently by numerous discussions of Miss Carson's book. The views expressed by Dr. Wilson in the following article represent another stand — one which we feel represents a realistic and constructive approach to this problem.*

THE EDITOR, ILLINOIS MEDICAL JOURNAL

Agricultural Poisons and Technologic Aids: A Physician's Viewpoint

JAMES R. WILSON, M.D.

The public expects and public health thinking prescribes clean* air, clean water, and clean wholesome food. Is this a naive statement, and one that is so widely accepted that it requires no repeating? I think not. The danger of contamination with toxic products of our expanding technology does not permit an attitude of complacency. Clean air, clean water, and clean wholesome food cannot be taken for granted.

Expansion in technology has been triggered, at least in part, by the population explosion. In turn, science has created the environment in which such an explosion could take place. In the face of the tremendous demands for food there is no simple going back to the "good old (inefficient) days." Science and technology must be used increasingly if factors which will limit our capability to produce, do not move in on us. One of these limiting factors is a short supply of fresh clean water. We give little thought here on the shores of great Lake Michigan to this problem, but it is a constant consideration in California and the Southwest, and often the subject of serious discussion by commentator John Daley.

If we accept the continuation of the population spiral as inevitable or even probable, then our choices are limited. We must use technology or accept famine.

If more and more people are to fed then there must be larger and larger crop yields. Larger crop yields mean that pests must no longer take their historic share of man's products. No longer can we accept spoilage factors that occur in storage. Greater processing efficiency calls for a multitude of technological aids. Many of these technological aids involve additives. The best additives that science can produce are needed if we are to win our war against hunger, but at the same time science must protect us from harmful technological aids. They are double-edged swords. But this is neither new nor necessarily alarming.

When the first householder tried to heat his cave with fire, the smoke undoubtedly drove his family outside and brought down his wife's wrath. He had to learn how to deal with fire — not stop using it.

How then are we to deal with new and sometimes dangerous technology? — We have been pretty smart in developing these things and we must be equally smart in using them.

The U.S. Department of Agriculture recently released a thoughtful and concise set of rules

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*For purposes of this paper let us define *clean* as meaning freedom from harmful microorganisms and freedom from additives which are harmful themselves or harmful because they react to produce deleterious effects when consumed. In respect to food, clean and wholesome are inseparable qualities. Wholesome implies that, in addition to cleanliness, food must make a significant contribution to the human dietary.

for "Safe Insect Control." It is a good example of excellent common sense and good scientific judgment. In essence, it suggests that when hunting for a mosquito, do not use a shotgun and be careful with your aim.

The following are some of the things that should be remembered about controlling household pests as reported by the Office of Information, U.S. Department of Agriculture, Sept. 1962:

1. Cleanliness.
 a. Routinely scrub out hard-to-get-at corners with hot water, soap or detergent, and disinfectant.
 b. Keep screens in good repair.
 c. Store food in metal, glass, or plastic containers. Quickly clean up food that spills into cracks and crevices in cupboards, walls, floors, and around baseboards.

 Since moisture and warmth encourage the multiplication of some household pests, keep the floor dry behind washing machines and under sinks.
2. Use chemicals only as necessary. Then use the *right chemical* in the *right way* at the *right time*. To select the right chemical and apply it correctly, know the pest you are trying to control. Determine where it lives and breeds, so that treatment can be applied only where needed.
3. Read The Label. Recommended dosages and safety precautions are carefully spelled out on the label of all pesticides, as required by the Federal Insecticide, Fungicide, and Rodenticide Act.

In conclusion, I wish to repeat what I said at the American Chemical Society Meeting ten years ago:

"It seems entirely right and in the interest of the public health that a democratic people should strive for, and expect clean air, clean water, and clean wholesome food. To this end additives of any form must be regarded both critically and constructively."

Important Announcement From Your Maternal Welfare Committee

The Maternal Welfare Committee wishes to assist the members of ISMS in maintaining their traditionally high quality professional care to the obstetrical population of Illinois by calling attention to a recent information circular distributed by your colleagues in the Department of Health.

It appears that there may be occasions where an individual physician may want to evaluate administration of flu vaccine as a service in preventive medicine to prenatal patients with type O blood. There are reports of increased bilirubin in newborns due perhaps to protein factor in the medication. Morbidity and mortality from influenza in unprotected patients has been significant in the past.

The Maternal Welfare Committee would appreciate knowing of any instances of newborns with jaundice in mothers having received flu vaccine, and the membership-at-large is urged to report such instances to either the Maternal Welfare Committee of ISMS, or the Bureau of Maternal and Child Health, Springfield, Illinois. The significance of any accumulated data will be evaluated at a subsequent date.



Lethal Wounds in Game Animals

It is the hope of every hunter as he squeezes off the shot to have the animal drop in its tracks, or at least to inflict a wound of such magnitude that it will not travel far. This ideal — making the first shot count because it is the best and generally the only chance at a given target — is realized infrequently for numerous reasons.

The American-made rifle with its corresponding ammunition is precision engineering at its best. If it is of proper caliber and weight for the game sought and properly fitted for the particular gunner, then after his thorough familiarization with all its parts and adequate practice on the range at various distances, it becomes a lethal weapon of the first order.

But the ballistic characteristics of wounding agents are vaguely understood by many gunners because of the physics involved. Most shoulder arms used by military personnel fire bullets in the weight range of 135 to 200 grains. These loads are comparable to those used on American big game and from knowledge of wounds in military personnel, this information — with reservations — is applicable to hunted species. These weights in grains are the weights of the projectiles only and in way refer to the powder charge in the cartridge case. Present day shotgun shells on the other hand, list the propelling charge as, for example, "3 dram equivalent" (abbreviated — "3 dr. equiv."). This means that the amount of modern smokeless powder used in this particular shotgun shell is equivalent in velocity to 3 drams of black powder formerly used in shells. Military bullets weighing 135 to 200 grains develop a kinetic energy at the muzzle in the order of 1,500 to 2,500 foot pounds (ft. lbs.). The impact kinetic energies decrease as target distances increase and usually are under 2,000 ft. lbs. and often less than 1,000 ft. lbs.

Before the application of the cathode ray oscillograph, microsecond x-ray and other electronic equipment to wound formation by missiles, no basic data existed. The human senses are inadequate to perceive the rapid sequence of events from the time of fire and the passage of the bullet in media of varying densities. After extensive studies, first in simple media such as water and 20 per cent gelatin blocks which approximate the density of tissue, and later in anesthetized animals, the conclusion emerged that all physical phenomena connected with the wound were directly the result of kinetic energy, $E=mv^2$, (E being the symbol for kinetic energy, m for mass and v for velocity). Neither momentum (which is equal to mass times velocity, $M=mv$), nor power (which is equal to mass times the cube of velocity, $P=mv^3$), the rate at which the energy did its work could be correlated with the oscillograph and microsecond x-ray data.

Velocity is the most important factor in making a bullet a casualty (kinetic energy) producer. The weight of the bullet (mass) in a portable sporting firearm, of necessity, is bound by definite limits up to 300 grains in magnum loads, and even extra heavy loads weighing up to 500 grains. The mass, though variable, assumes the character of a constant and the kinetic energy increases as the velocity is increased since the latter is squared — E (kinetic engery) equals m (mass) times v^2 (velocity squared). However, for practical purposes, velocity can be increased only to a point where recoil is tolerable to the human shoulder and flinching is minimal.

Penetrating wounds are formed in humans when impact velocities exceed 200 *feet per* second and most battlefield casualties result from impact velocities in excess of 500 f.p.s.

High explosive shell fragments and secondary missiles produced by them such as concrete, stone, glass, metal and timber fragments have velocities in the order of 3,000 f.p.s. at close range. If bone is struck after penetration, its pieces, too, become secondary missiles. At super velocities, a very small fragment weighing only one grain can produce tremendous tissue destruction.

The mechanism of wound formation is due to pulsations or shock waves resulting from kinetic energy. The tissue in front and at the sides of the bullet is explosively thrown from the penetration path and a large pulsating cavity results. Low impact velocities produce relatively clean wounds and lack the explosive effect. Medium velocities result in considerable tissue damage and variable explosive effect. The high impact velocities produce the typical explosive wound and maximum tissue destruction. In wartime, it was the finding of these wounds that lead to charges that the enemy had used explosive bullets.

The entrance wound on the skin establishes the bullet presentation at the moment of impact. Key-hole entrance wounds are interpreted as due to the tumbling effect of bullets, but this is often not true since modern weapons in good condition impart adequate spin to the bullet to maintain rotation about its long axis. Deflection by foliage, twigs or ricochet will cause a bullet to tumble excessively, however. The key-hole wounds result from long range shots because the bullet does not maintain its axis parallel to the ground and seldom strikes "point on".

In passing from air to tissue, the latter being about 800 times denser than the former, yaw, gyration and other motions of the bullet are increased enormously. A bullet that is "point on" at the skin in a space of several inches of penetration may be at right angles to its initial path and several inches deeper may again be in line with the original flight path. Moving through tissues of varying densities, for example, skin, muscle, lung, bone, and finally muscle, will have extreme effects on the bullet motions and almost unpredictable wounding effects in the respective tissues.

With this ballistic information one is in a better position to understand why an animal drops on the spot or if not hit properly, becomes lost game — an unforgivable blunder with today's firearms. Such losses, with few exceptions, rest squarely on the hunter. If that first shot is properly placed (as described in the following list) then there will be little doubt as to the result:

- Disruption of the central nervous system is instantly devastating; but, the brain cavity is a very small target difficult to hit except at close range. Also, if this is accomplished, the trophy is ruined. A shot through the neck is most effective if the spinal cord is hit; but the position of the cervical column is not easily visualized by the average hunter, especially with the development of the "bull neck" in males during the rut. To strike the spinal column is difficult except at close range, but a wound at the level of the shoulders will kill the animal or immobilize it. A shot in the vertebral column, farther back from the shoulders, will lead to varying degrees of posterior limb paralysis.
- Gut shots are the poorest of all and perhaps are the most frequent cause of losses. The broadside of a game animal presents roughly two-thirds gut target and it is very easy to misjudge and strike the animal farther back than intended.
- The ideal shot — the one to always strive for — is through the lung, shoulder, heart area and opposite or far-side extremity. This area presents a large target, is easily identified, and several inches deviation from the point of aim still places the bullet in the vital area. A high shot through both shoulders will drop an animal if not kill it outright.
- Bearing in mind the pulsating cavity from the above discussion on wound ballistics, it becomes clear that a shot into the anterior thorax with a proper bullet of adequate velocity will disrupt the circulatory and the respiratory systems. Pneumothorax or hemothorax with accompanying mediastinal shift are devastating injuries and if whatever remaining energy of the missile is directed into the opposite shoulder or upper leg, the animal will surely expire.
- Broadside presentation or those quartering away from or toward the hunter lend themselves to placing the shot into this large vital area.
- A lower placed bullet into the anterior thorax will result in a heart shot. The heart lies lower in the chest than many hunters imagine — between the legs.
- In the face to face presentation, aiming at the juncture of the neck will place the shot into the heart and major vessels area.
- In the posterior presentation, a shot between the hams will penetrate the entire abdominal cavity and finally lodge in the thorax.
- No shot at all is better than a poor one. Any shot is only as good as the man who discharges it.

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Statement on Medical Care Under Public Aid

I appear before you today as an official representative of the Illinois State Medical Society to deliberate sincerely on administrative problems of the provision of medical services. One facet of this has received considerable public attention recently, that of large payments to individual physicians for professional services rendered to public aid recipients. Before speaking directly on this issue, it seems appropriate and necessary to review briefly the objectives and services rendered by the State and County Medical Society Advisory Committees.

From the inception of the public aid medical program some 20 years ago, medical advisory services have been provided as an integral part of the professional medical society in Illinois. The Commission has found it advantageous to use Committees appointed by the Illinois State Medical Society and county societies, thereby gaining backing and support from the profession as a whole. All of you undoubtedly are aware of this activity, but are perhaps not familiar with the detailed functions of the Committee or the dedicated services of the members. I take this opportunity to invite you, Mr. Chairman, and members of the Commission, to attend one or more of our meetings for a first-hand look at what we are trying to accomplish for the benefit of the public aid medical program in Illinois.

Among other things, you will discover that our Committee is deeply and vitally concerned with both the quality and costs of the program. You will find that the State Committee and the County Committees have probed deeper into the professional aspects of these problems than any investigative body has done to date. We invite you to observe the critical judgment passed upon the work of our fellow practitioners at each meeting of the State Committee. We would remind you that this service is performed gratis and not infrequently, with somewhat less than cordial reception by our colleagues who are subjected to this discipline. Gentlemen, I can assure you that the program does not lack a willingness of Illinois' physicians to face the problems or to discharge a wide measure of responsibility for the judicious use of the services under this program.

We must, of course, remind you that we serve in a consultative capacity as differentiated from the administrative responsibility vested by law in the Public Aid Commission and its staff. Our part in the program is effective in direct proportion to the acceptance of our advice. Furthermore our effectiveness depends upon the general rapport maintained between the administration of the program and the participating physicians. Public criticisms and investigations of the medical program which imply wrong-doing but which do not substantiate fraud or poor quality care, simply serve to drive physicians from participation in the program. We cannot accept the findings of investigations by non-medical personnel as valid criteria for judging the level of medical care in these situations.

Interviews with physicians receiving substantial sums for services to public aid patients have been conducted by our committees in Chicago and downstate. The underlying cause of the large patient load is generally found to be a high concentration of welfare recipients in and around the area where the physician prac-

Presented to the Illinois Public Aid Commission October 11, 1962, by William H. Whiting, M.D., Chairman, Illinois State Medical Society Advisory Committee to the Illinois Public Aid Commission.

tices. Usually, the physician is working long hours to meet the demands for service. Well equipped offices have been provided to meet the large demands. Most of these physicians indicate an unwanted erosion in their private practice because of the high volume of public aid patients. To them, a reduction in the load would be most welcome. This is not a simple problem which lends itself to statistical solution. To be sure, there are relatively simple questions of supply and demand. But more cogently, the intimate, personal relationship between physician and patient and the mutual responsibility to reach the desired end of health must be considered. Non-professional surveillance has not solved this problem. There is some indication that public aid patients may be visiting more than one physician for the same condition. Pending further professional analysis of this situation, we have two recommendations to make. These recommendations have been approved by the State Medical Advisory Committee and the Board of Trustees of the Illinois State Medical Society. They are:

1. Publication of a roster of participating physicians in areas where public aid recipients are highly concentrated.
2. An identity card system which would indicate the services received during the month as well as establishing the eligibilty of patients for public aid medical care.

A published roster of participating physicians may be used by caseworkers and physicians to refer patients for a more even distribution of the patient load. If there is widespread misuse of services by patients floating from one physician to another as some physicians indicate, this should be corrected by an identity card system. We are at a loss to know why certain investigative reports indicate that the Commission is paying for more than the allowed number of physicians' visits. We assume that proper auditing procedures are being carried out to prevent payments for unauthorized services.

Turning to the more general subject of costs, consideration must be given to the objectives of the program in relation to the legal and moral responsibility toward those citizens of Illinois who cannot provide for their own needs. In the "Public Assistance Code of Illinois", Sec. 1-1, the policy statement provides for assistance and services to maintain a minimum standard of living compatible with decency and health.

The services of the Illinois Public Aid Commission are intimately concerned with the preservation of the family, the successful development and integration of children into modern society and the preservation of the health and dignity of the elderly in our society. In the realization of these goals, medicine plays a constant and necessary role which will assure all recipients of the most effective means to health. It is the concern of the physicians of Illinois to make available to all recipients of public aid all essential medical services basic to the maintenance of a decent and healthful standard of living. These services include diagnosis, advice, medicines, surgery, and other treatment methods that will make it possible for them to meet problems of sickness, injury and deformity with the advantage of the knowledge and methods of modern medicine today.

It is immediately apparent that adequate, nourishing food; comfortable, suitable clothing; and uncrowded housing with appropriate sanitary facilities are also essential to health. The problems of illness are immeasurably complicated when serious deficiencies in these needs are inadequately supplied.

Costs per unit of service must be distinguished from total expenditures for the medical program. Physicians do not establish the costs of a day in the hospital or nursing home and all of the many services consumed under the program. Physicians are the only vendors of services to recipients who have always accepted a reduced fee schedule. In Cook County, physicians have never been compensated for services provided to recipients in hospitals although hospitals have been paid for all services. Physicians' fees represent approximately 9% of the total medical care expenditures. This item is not a prime cause for critical budgetary conditions.

Physicians, of course, are directly involved with the amount of services provided. Expenditures can be reduced drastically by simply reducing the amount of authorized medical care. Our State Committee has always considered as our basic objective, the provision of essential services. For that reason limits have been placed on the number of visits to physicians,

prior approval for expensive drugs and review of hospital stays. Unfortunately, it has not been practical to define precise limits of "essential", "adequate", or "optimal services". A portion of the Guillebaud Report on the British National Health Insurance Program dealt with this subject. No clear limits or definition could be provided. We must bear in mind that the needs and demands are powerful factors in determining the services considered essential. In view of the present existence and utilization of cost standards, it is apparent that some delineation of standards of care can be developed. If the Commission is prepared to deal with this matter realistically, we believe they must accept a full measure of responsibility for fulfilling the requirements of public aid recipients.

We believe that this is a two-way street. As physicians, we willingly, in fact enthusiastically, accept the responsibility for expanded services that so dramatically broaden the base of appropriate health care for every person. We argue, however, that the concomitant responsibility of the private individual, all other parties paying for medical services, as well as society generally, is to accept the principle that adequate and realistic funds must be made available. Negotiation between responsible parties such as the Illinois State Medical Society and the Illinois Public Aid Commission needs mutual respect and confidence and willingness to openly discuss all aspects of our relationships.

As previously indicated, we have devoted a great deal of thought to this problem and how we might work with the physicians in Illinois to hold the services within reasonable bounds without jeopardy to the health of public aid recipients. The State Committee is prepared to recommend at this time that at least two physician coordinators be employed by the Commission to work on this problem. The coordinators would be sent into the field to consult with participating physicians on a professional basis with respect to the services given. They would be expected to be thoroughly familiar with the policy and regulations of the program and capable of explaining to the physicians why such policy is necessary. The physician-coordinators might be employed full-time, but a part-time arrangement would seem more feasible during the initial stages. They should be employed upon the recommendation of the Illinois State Medical Society and the Medical Advisory Committee to assure proper backing and medical support.

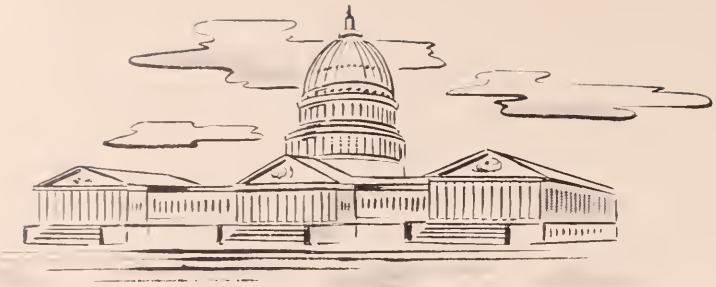
We believe that such an investment in additional personnel will result in substantial savings. A deficiency, of course, exists in the overall medical program until the Medical Division can be properly organized under a qualified Medical Director. A serious handicap in this regard is the unrealistic salary offered for the post. The compensation must be in keeping with the qualifications required for this position.

I appreciate this opportunity to appear before you. I hope that I have convinced you of the sincere desire of the physicians in Illinois to make our public aid program meet the needs of our people in this state and to do it in a manner which is both medically and economically sound.

Thank you.

An Appalling Development in Government Control

Physicians very often have differing opinions about the usefulness of an agent in treating a particular disease. Many eminent physicians, for example, favor the use of the corticosteroids in the treatment of rheumatoid arthritis, but others believe that the corticosteroids are not the drug of choice for this purpose. Under such circumstances, it is difficult, if not impossible, to determine the exact effectiveness of the corticosteroids in treating rheumatoid arthritis. It would be an appalling development to have the Food and Drug Administration, directly or indirectly, limiting the rights and responsibilities of a prescribing physician by determining, for example, the corticosteroids should not be marketed because of the FDA's opinion that they lack efficacy. *I. S. Ravdin, M.D., Professor of Surgery, University of Pennsylvania School of Medicine, to House Interstate and Foreign Commerce Committee, August 20, 1962.*



Legislative Roundup for the 87th Congress

Congress adjourns — The Second Session, 87th Congress, adjourned on October 13, after the longest session in 11 years. . . . The record of the 87th Congress on the President's program is mixed. . . . However, from the AMA's point of view, the legislative results were generally on the plus side. . . . The Administration's proposal for health care of the aged financed through social security was defeated. . . . A 12-year legislative effort by the AMA and other organizations was fulfilled when Congress passed H.R. 10 and the President, denied a chance for a pocket veto and faced with the possibility of Congress overriding his veto, signed it as Public Law 87-792.

Chronological highlights — Following is a quick chronological look at the legislative highlights during the Second Session, 87th Congress:

Jan. 10 — Second Session convenes with the Administration's aged care proposal, H.R. 4222, still before the House Ways and Means Committee.

Jan. 11 — President Kennedy says in his State of the Union Message that "in matters of health, no piece of unfinished business is more important or more urgent than the enactment under the social security system of health care for the aged."

Jan. 25 — Ways and Means Committee Chairman Wilbur Mills declares that he does not support H.R. 4222.

Jan. 31 — The Senate Finance Committee rejects a motion by Sen. Clinton P. Anderson (D., N.M.) to hold public hearings on the aged care issue no later than April 1, whether the House had sent a bill to the Senate or not.

Feb. 7 — Rep. Thomas B. Curtis (R., Mo.) introduced a bill (H.R. 10117) which would permit a tax incentive for employers to establish health care benefits in employee retirement programs.

Feb. 15 — The National Council of Senior Citizens for Health Care Through Social Security announces a four-point program, including a mass rally in New York, and a "Cavalcade to Washington, D.C." to dramatize support for H.R. 4222.

Mar. 24 — Democratic National Chairman John M. Bailey attempts to link the AMA to the John Birch Society and is severely criticized.

Mar. 27 — President Kennedy meets with 27 MDs belonging to the Physicians Committee for Health Care for the Aged Through Social Security.

Apr. 1 — The Gallup Poll shows a 12% drop — 67% to 55% — of people favoring the social security approach to health care of the aged.

Apr. 4 — Rep. Curtis of Missouri points out that the Physicians Committee does not demonstrate new support for H.R. 4222 since it is composed of "old faces" who have long been identified as supporters of the social security approach.

Apr. 11 — President Kennedy urges Congress to enact the Kefauver drug control bill (S. 1552).

Apr. 16 — Sen. John J. Williams (R., Del.)

Prepared by the Council on Legislative Activities American Medical Association.

turns back the Kennedy Administration's plan to use civil service workers as a huge lobby to promote Administration programs.

May 1 — Seven AMA leaders meet with President Kennedy on May 1, but there is no switch in position on either side and no talk of a compromise.

May 2 — The New York Herald Tribune reports that 6 to 10 federal government employees in the White House Office have been working for more than 3 months to promote the Administration's plan of health care for the aged under social security.

May 9 — Dr. F. J. L. Blasingame charges that HEW Secretary Ribicoff committed a criminal act by publishing a 159-page booklet which lobbies for the social security approach to health care of the aged.

May 16 — United Press International reports that "a damaging and possibly fatal blow" was delivered to H.R. 4222 when Rep. Clark W. Thompson (D., Tex.), a member of Ways and Means, declared that he did not intend to vote for H.R. 4222.

May 20 — Rallies in support of H.R. 4222 are held at Madison Square Garden, with the President as the featured speaker, and in thirty other cities. . . . The rallies fail to draw expected crowds and are canceled in Denver, Philadelphia, Dallas, San Francisco, Louisville, Atlanta, and Birmingham. The "Motor Cavalcade" to Washington does not materialize.

May 21 — The AMA answers President Kennedy with its own televised program "Your Doctor Speaks," featuring Dr. Leonard W. Larson and Dr. Edward A. Annis. In four days, 24,000 letters are written to the AMA, 90% of which voice opposition to H.R. 4222.

June 13 — Rep. Mills declares that he is not proposing any compromise in lieu of H.R. 4222 to which he is still opposed.

July 5 — President Kennedy expresses "strong support" for the Anderson-Javits aged health care amendment which is introduced in the Senate to bypass the Ways and Means Committee.

July 17 — A significant victory for American medicine is achieved as the Senate votes to table — in effect kill — the Anderson-Javits amendment.

July 20 — President Kennedy signs the welfare bill (H.R. 10606) as Public Law 87-543. It also allows states to operate public assistance plans for the aged, blind, disabled, and the Kerr-Mills Medical Assistance for the Aged program as a single plan. AMA has favored this unification.

July 22 and 25 — Gallup Poll shows sentiment for Administration's health care bill slipping again in midwest and east.

Aug. 1 — President Kennedy, citing the Thalidomide episode, urges Congress to adopt the Administration-proposed drug bill (H.R. 11581 and H.R. 11582).

Aug. 14 — In a surprise move, the Ways and Means Committee passes the Curtis bill (H.R. 10117).

Aug. 23 — The Senate by a vote of 78 to 0 passes the Kefauver drug control bill (S. 1552).

Sept. 7 — The Senate passes, with amendments, H.R. 10.

Sept. 11 — The House passes the Curtis bill (H.R. 10117).

Sept. 11 — The House passes a bill (H.R. 10620) which would roughly double the maximum amounts individuals may claim on their income returns for medical and dental expense deductions.

Sept. 17 — Senate-House Conferees reach compromise agreement on H.R. 10.

Sept. 25 — House passes compromise version of H.R. 10 by a vote of 361 to 0.

Sept. 27 — The House passes the drug control bill (H.R. 11581). The bill is amended on the floor to bring it into closer conformity with the Kefauver bill (S. 1552).

Sept. 28 — The Senate passes compromise version of H.R. 10 by a vote of 70 to 8.

Oct. 2 — Senate-House conferees unanimously pass compromise version of drug control bill.

Oct. 3 — Senate passes drug control bill.

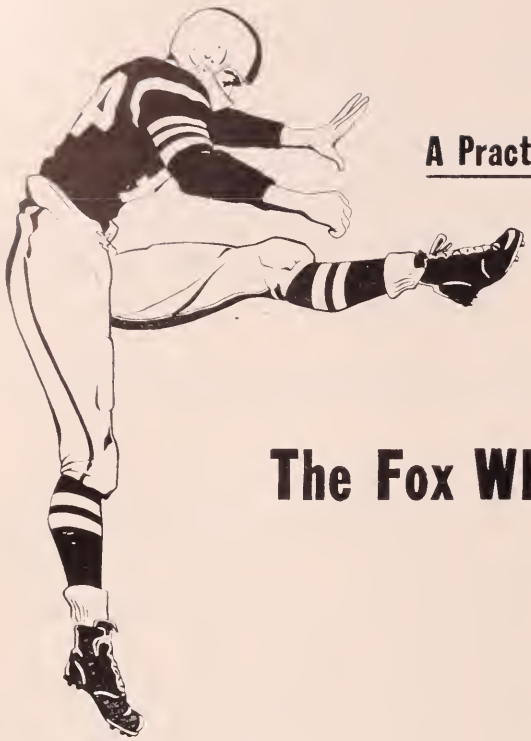
Oct. 4 — House passes drug control bill.

Oct. 10 — President Kennedy signs drug control bill as Public Law 87-781.

Oct. 11 — The House and Senate passes and sends to the President a bill combining the Curtis bill (H.R. 10117) and the medical deductions bill (H.R. 10620).

Oct. 13 — Second Session, 87th Congress, adjourns.

Oct. 17 — President Kennedy signs into law a bill creating a National Institute of Child Health and Human Development.



A Practice in a Million

The Fox Who Treats the Bears

Seldom do bears owe their well-being to a fox — but Dr. Theodore A. Fox, Winnetka, Illinois, represents an outstanding exception. For 14 years, Dr. Fox has been orthopedic surgeon for the Chicago Bears football team. Although his professional background as Chief of Orthopedic Surgery at Illinois Masonic Hospital, Associate Professor of Surgery at the University of Illinois Medical School, and Attending Orthopedic Surgeon at the University of Illinois Research and Education Hospital is an outstanding qualification for the job, he confesses that only experience has given him "the diagnostic acumen and therapeutic modalities necessary to keep a professional football team in top playing condition.

"Athletic injuries and football orthopedics really is a new specialty," Dr. Fox asserted. "Injuries are invariably acute, and there is an urgent need for rapid, total recovery of the patient. The physician treating injured athletes must be available at all times in order to see the patient as soon as possible after the injury is sustained. Then too, he must be certain of the diagnosis in order to institute proper treatment and correctly determine the athlete's ability to continue play."

The football orthopedist, Dr. Fox stated, must be acquainted with all modalities of treatment, including prophylaxis, nonsurgical as well as surgical techniques. "Contusions are most frequently encountered," Dr. Fox commented, "then ligamentous injuries of the hands, knees, and ankles, in that order." The relatively few fractures or other serious injuries encountered are due to the superb conditioning of top athletes ("the injury prone never make it in pro football") and the excellent equipment ("every protective device is personally fitted — no expense is spared to assure optimal protection of the players").

Injuries requiring repeated physiotherapy are treated by his "excellent right arm" the team trainer, Ed Rozy, in the physical therapy and training room at Illinois Masonic Hospital, only a few blocks from Wrigley Field. It is not unusual on Monday mornings following a game to see Dr. Fox's "small" office filled to capacity with "large" football players. "Generally we deplore the use of diathermy and other deep heat measures which more often aggravate than heal injuries," Dr. Fox stated. "Superficial heat therapy such as whirlpool and hot packs are more efficacious."

Modern medical advances have done much to reduce the recuperation time of injured athletes, Dr. Fox asserted. "The injection of hyaluronidase, mixed with a topical anesthetic, has been of tremendous value in reducing swelling, inflammation and pain in hematomas, myositis, and acute strains and sprains," he explained. "For joint injuries, aspiration followed by intra-articular injection of a corticosteroid also is very effective." Dr. Fox's fondness for these injection modalities has earned him several friendly nicknames from the players, among them "Needles" and "Zorro."

One of the most difficult common injuries to treat is traumatic myositis, the familiar "charlie horse." Dr. Fox explained that "the muscle break in this instance is replaced by scar tissue which is non-elastic and hence represents a permanent weak spot. Players with this injury must warm up slowly and constantly must be watched."

Although serious accidents in pro football are rare, they do occur. Several years Bear end Harlon Hill suffered a spontaneous rupture of the heel cord. This injury usually is incapacitating, but the surgical repair performed by Dr. Fox restored Hill to full playing status, where he remained for another five years.

Dr. Fox, with team physician Dr. L. L. Braun, attends all Bear home games sitting on the bench at Wrigley Field. Dr. Fox, who attends all the games away from home, admits that his schedule often is hectic. "Luckily," he says, "we're in the jet age, with no game more than a day away. Otherwise I don't know how I'd do it."

When asked what advice he gives to a team physician or one who treats injuries of athletes, Dr. Fox submits his "Ten Commandments:"

1. BE AVAILABLE . . . at all times to see the injured players as soon as possible; preferably on the sidelines, especially in contact sports.

2. BE TRAINED . . . in all modalities, of the prevention, diagnosis and treatment of soft tissue injuries, as well as skeletal injuries.

3. X-RAY . . . order and personally review film of all injuries.

4. EXAMINE . . . all candidates personally prior to participation to determine fitness for team. This examination should include general physical examination, as well as maturity, coordination, agility, stamina, and strength.



Dr. Fox checks on arm injury sustained by Maury Youmans, Chicago Bears' defensive end and former All-American from Syracuse University.

5. SUPERVISE . . . the coach and/or trainer in the proper use of physiotherapeutic modalities; exercise program necessary for continued conditioning of player; and the pre-game application of adhesive tape, protective splinting where indicated.

6. SELECT AND FIT . . . all protective gear and equipment personally and check type and quality.

7. BE RESPONSIBLE . . . for total rehabilitation of the injured athlete.

8. OBSERVE AND EVALUATE . . . the emotional well-being of the athlete, especially at the high school level.

9. PREVENT . . . the injured player from returning to the game if there is a reasonable doubt of his condition, and a physically disqualified individual from participating. Resist all pressure to do so, whether it comes from player, parent, coach, alumni, or spectators.

10. KNOW . . . the basic fundamentals of the involved sport to better understand the injured player and his problems.

Psychiatry Brief

The Battered Baby Syndrome

John P. Andrews, M.D., *Chicago*

A new descriptive term "the battered baby syndome" has recently been added to medical terminology and denotes a condition in which a child has received serious willful physical abuse from the hands of parents or others caring for the child. There have been several reports in the past fifteen years of the radiological appearance of otherwise unrecognized trauma to infants and children but only in the last few years have the clinical and psychiatric aspects been adequately investigated.

The diagnosis depends on a high level of suspicion. The disparity between history and clinical findings is an important tip off and the presence of subdural hematoma, unexplained bruising or unexplained fractures usually in a malnourished child should lead to adequate investigation. Radiologic examination will confirm the diagnosis in the vast majority of cases.

Although the syndrome may occur at any age, the vast majority are under 3 years, before the child has learned to express himself. The clinical signs depend on the extent of abuse varying from a mild single episode of trauma to severe repeated assault frequently ending in death. Often there is little or no external evidence of injury and the patient's findings may be thought to be due to some other cause, such as infection or failure to thrive. Sometimes there is obvious bruising which the parents are unable to explain and a hematological workup will fail to show any coagulation defect. These children are frequently undernourished and may show an iron deficiency anemia.

The medical history is usually deliberately misleading and discrepancies between clinical findings and history are an important clue.

The radiologic findings are most important and adequate x-ray examination should be performed on all suspect cases. The extremities are most subject to trauma and it is here that evidences of injury are most commonly found Subperiosteal hematoma, periosteal shearing and epiphyseal separation are found more commonly than gross fractures and must be differentiated from such diseases as scurvy, syphilis and osteogenesis imperfecta. It must be remembered that it may take up to 2 weeks for evidence of injury to show radiographically. Also, evidence of bony lesions at varying stages of repair are an important evidence in favor of repeated trauma. Strong correlation between traumatic subdural hematoma and fractures elsewhere has been frequently stressed.

The psychiatric aspects of parents involved in the battered baby syndrome are only beginning to be understood. Frank psychosis is common but certainly not the rule. All strata of the socio-economic scale are involved. Immature compulsive types are often to blame and there may be a history of alcoholism or marital discord. The child may be the product of an unwanted pregnancy or there may be a history that the parents had been similarly maltreated in their own childhood. Questioning of each parent about the other and their feelings about the child may be fruitful or psychological tests may show poorly controlled aggressions.



Editorials

Physician Unions

Many physicians oppose the idea of forming a union because it is not in keeping with their professional ideals and attitudes. It is not dignified and they might lose the respect of their patients despite the oft heard nonsense that the AMA is the most powerful union in the United States.

Salaried physicians find occasionally that it is difficult to render good service and deal with their employers because they lack the bargaining power of a strong union. We were reminded of this when Dr. Francis J. Gerty disclosed to the press that members of all except three of the ten unions supplying workers to the state mental hospitals make more money than physicians.

According to the Chicago Tribune: "The beginning pay for doctors is $625 a month, psychologists $470, and psychiatric aids $245. Electricians earn the most — $826.50 a month. They were granted a $43 raise. Tinsmiths were raised from $739.50 to $774.30, brick masons from $765.60 to $800, steamfitters from $739.50 to $774.30 and plumbers from $730.80 to $765.60."

Gerty pointed out that trade union employees have a "decided advantage" in working for the state because they earn the prevailing pay of tradesmen in private industry and are guaranteed a 40-hour week.

It is estimated that 40 per cent of all physicians are not in the private practice of medicine. The group includes full time clinicians, teachers, researchers, medical administrators, writers and those in government service. Some do not belong to organized medicine claiming that it has nothing to offer them. It is possible that some members of this group will organize a union in the future for bargaining power.

There are many indications that our financial dealings with the government will increase and a strong united front will provide more benefits than 40 or more weaker thrusts from state societies. Times are changing; politicians are getting stronger and some are becoming power crazy. The rules are made now in Washington and federal agents are sent out in hoards to enforce rigid and often unrealistic amendments to the constitution.

We do not advocate unionism nor do we wish to be left holding the bag as occurred with the English physicians. Politics and medicine are uneasy bedfellows but the time has come when we must make a choice. A union has many advantages but it is not in keeping with the physician image and violates his ethical relations with the patient.

The practice of medicine is a public trust. It has been nurtured and preserved by generations of physicians who loved their profession. Physicians have been in politics before and should continue to utilize their talents in the business of government. We will be better represented in Washington by physician legislators than by the forces of unionism.

Ulcers in Children

Dr. Margaret Prouty saw 34 new cases of peptic ulcer in children during the 12 months ending March, 1961. In her opinion the condition is on the increase. Without exception each child had emotional problems. Many were so severe that they could not be solved whereas others were of a temporary nature. In many instances the danger signals were present long before the abdominal pain appeared.

The majority of the patients had at least one parent with an ulcer. In many of the children the onset of acute symptoms followed an upper respiratory infection. She noted also that the children could be described as good children with high intelligence. They were perfectionists, and tended to be high strung and jittery with strong needs for praise and appreciation as well as love. The crater is in the making when this type of personality is beset with emotional problems at home or school.

Prouty sends the child and parent to a dietician as soon as the diagnosis is substantiated by x-ray. A liberal ulcer regimen is started including the use of a antispasmodic tranquilizing compounds. The cooperation of the teacher is sought in order to avoid hurting the student's prestige and to be excused for taking his medicine. Psychiatric help is needed in some instances.

REFERENCE

Prouty, Margaret: "Red Alert" for Duodenal Ulcer in Children, Wisconsin Medical Journal 61:387 (Aug.) 1962.



New Drugs

Enovid was vindicated last month as having no causal relationship with thrombophlebitis. The vindication came at a conference of leading specialists held in the headquarters of the AMA. The participants came from all over the United States, Canada, and Great Britain; each presented data based on personal experience in the practice of his specialty. The meeting was under the chairmanship of Dr. Michael E. De Bakey and the data supported the position of the FDA and the Searle medical staff relative to its safety. The evidence did not establish any causal relationship between Enovid and thromboembolic disease.

Naquival is Schering's new antihypertensive drug. It is a combination of trichlormethiazide (Schering's diuretic Naqua) and reserpine. We assume it has the same advantages as similar combinations now on the market.

Eli Lilly and Company introduced **Pulvules® Novrad™ with ASA®** for the symptomatic relief of cough, generalized aches, pain, and fever associated with many of the upper respiratory tract diseases. This combination of a non-narcotic antitussive with acetylsalicylic acid is reported to be well tolerated. It is available on third party orders only.

According to the American Dental Association, the number of fluoride-deficient communities in the United States is 18,000, with a child population of 40,000,000. The term fluoride-deficiency does not have universal acceptance but it has possibilities. The U.S. Vitamin and Pharmaceutical Corporation tagged vitamins with a fluoride compound (**Fluorac**) and will market the product to supply the daily fluoride and certain vitamin needs of children. Its developers believe that wide use of the combination tablet may repeat the history of vitamin supplementation. Dental caries were totally absent among more than 200 7-year-old children who had taken fluoride tablets since birth and whose mothers had also ingested the supplement during pregnancy. Fluorac, according to a news release, is an orange-flavored, chewable tablet containing a daily supplement of fluoride to prevent dental cavaties and of vitamins A, B_6, C and D to prevent vitamin deficiencies.

Reference Page Number 36

Illinois Medical Assistants

Definitions:
a. A medical secretary is one whose principal duties are secretarial in nature, but may include assisting in direct care of the patient by performing simple non-technical procedures.
b. A medical assistant is one whose principal duties are concerned with direct treatment of the patient, performing nursing, laboratory, x-ray or other technical duties.
(Note: These two areas of responsibility are frequently combined in the duties of one individual.)

The Illinois Medical Assistants Association is a non-profit organization affiliated with the American Association of Medical Assistants. It is not nor shall it ever become a trade union or collective bargaining agency.
An active member shall be one who complies with the following:
1. Employed by a licensed doctor of medicine and/or working under the supervision of a doctor of medicine who is a member of a component society of the American Medical Association; 2. Engaged in an administrative or technical capacity; 3. A member of a component (County) and constituent (State) Chapter of the American Association of Medical Assistants Inc.

Education

A special approved training course for all Illinois Medical Assistants Association members—Medical Assistants Program—is offered by Crane Junior College, 2250 W. Van Buren St., Chicago 12.

Cook County Graduate School of Medicine, Division of Pathology, offers courses in laboratory technic. The basic courses are: hematology, urine analysis, chemical analysis of feces, elementary bacteriology. The advanced courses are: basal metabolism tests and electrocardiographic technic, bacteriology, chemical examination of blood, histologic technic, serology, and allergy.

National Certification Program

The *purpose* of the certification program is to help physicians identify those qualified as top-level secretaries and assistants; to establish professional standards and goals for medical secretaries and assistants; to assist schools and colleges in developing training programs; to prepare and administer an annual examination and to certify those who successfully complete the examination.

Certification will be presented in two classifications: (1) for the medical secretary, and (2) for the medical assistant. It will be based on passing a written examination (plus a practical examination in certain skills and technics).

Applicants for certification need not be members of the American Association of Medical Assistants. If not a high school graduate, one must have at least seven years experience in a medical office or hospital; if a graduate of high school—six years experience; if a graduate of an accredited junior college or business college—four years experience; if a college graduate or registered nurse—three years experience. At least one continuous full year of employment with one doctor of medicine or hospital is required; also the name and address of the employer.

Planned first examination for certification to be given in 1963.

Mutual Physician-Assistant Benefits

Each monthly meeting includes instruction from the Medical Assistants Handbook, given by a physician or suitable person for the topic selected.

A state professional symposium is held each year. It is a three day meeting with lectures, panels and election of officers.

Emphasis in training increases assistant's cooperation with the medical profession in improving public relations.

County Chapters—Illinois Medical Assistants Association

Adams
Champaign
Cook
DeKalb
Kane
Macon
Peoria
Tazewell
Vermilion
St. Clair
McLean

from the Illinois Medical Journal
NOVEMBER, 1962

ry likely to acquire a spastic colon: the oversensitive woman

nts with irritable bowel tend to be oversensitive, overconscientious or resentful, according to psychological studies.* patients need relief from anxiety as well as from physical symptoms.

AX provides both. Its anticholinergic, oxyphencyclimine, gives uninterrupted relief of pain, spasm, and hypermotility through nged action that is chemically "built in." Atarax (hydroxyzine HCl) calms without increasing gastric acid secretion. bined in ENARAX, they successfully control symptoms of peptic ulcer, functional bowel syndrome and many other G.I. ders. We think you'll find ENARAX most likely to succeed with **your** G.I. patients. For complete prescription information, ult product brochure.

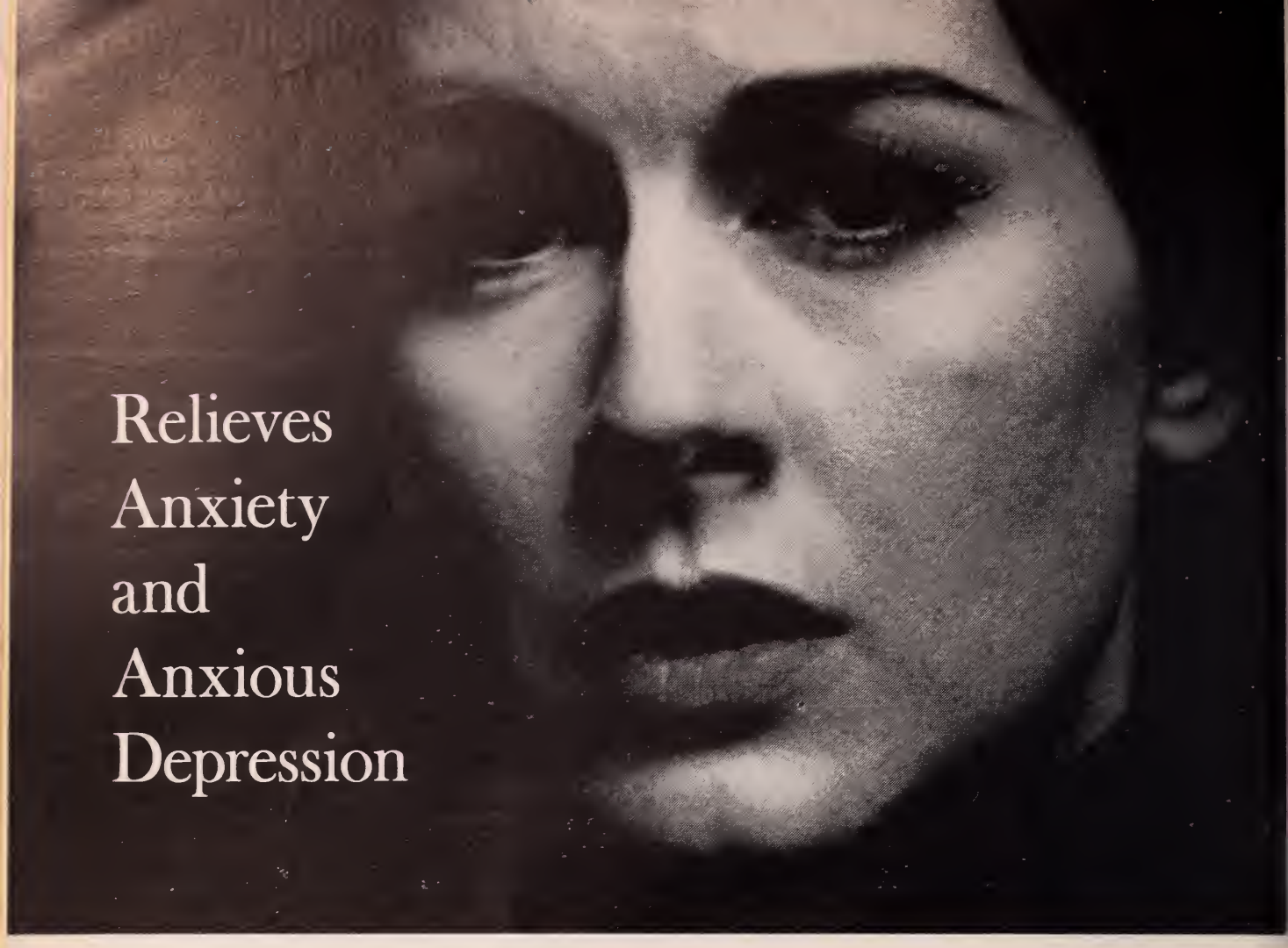
*Alexander, F.: Psychosomatic Medicine, New York, W. W. Norton, 1950, p. 119.

New York 17, N.Y., Division, Chas. Pfizer & Co., Inc., Science for the World's Well-Being®



st likely to control the symptoms **ENARAX®**

(oxyphencyclimine plus Atarax®)



The outstanding effectiveness and record of safety with which Miltown relieves anxiety and anxious depression – the type of depression in which either tension or nervousness or insomnia is a prominent symptom – has been clinically authenticated time and again during the past seven years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®

meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® – 400 mg. *unmarked*, coated tablets, and in *sustained-release* capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

WALLACE LABORATORIES / *Cranbury, N. J.*

Clinically proven in over 750 published studies

1 Acts dependably – without causing ataxia or altering sexual function

2 Does not produce Parkinson-like symptoms or liver damage

3 Does not muddle the mind or impair physical activity

SPECIAL COUGH FORMULA
for Children

Pediacof®

SOOTHING DECONGESTANT AND EXPECTORANT

Each teaspoon (5 ml.) contains:

Codeine phosphate	5.0 mg.
Neo-Synephrine® hydrochloride (brand of phenylephrine hydrochloride)	2.5 mg.
Chlorpheniramine maleate	0.75 mg.
Potassium iodide	75.0 mg.



Bright red, pleasant tasting, raspberry flavored syrup

Dosage:

Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

How Supplied:

Bottles of 16 fl. oz.

Available on prescription only.

Exempt Narcotic

Winthrop
LABORATORIES
New York 18, N. Y.

Stelazine® will stop anxiety—but not your patient!
brand of trifluoperazine

To be truly useful in your office patients, an ataractic agent must not only relieve anxiety; it must also leave these patients sufficiently alert to engage in their normal activities.

'Stelazine' is such an agent. Its ability to relieve anxiety without producing appreciable sedation has been established in thousands of patients and documented by many published reports. Typical is the finding of Kolodny,[1] who concluded that the primary advantage of 'Stelazine' over many other tranquilizers seems to be "its ability to relieve symptoms of anxiety without undue interference with alertness."

When you wish to relieve anxiety, yet encourage the patient to engage in his normal activities, consider 'Stelazine'.

1. Kolodny, A.L.: Dis. Nerv. System *22*:151 (Mar.) 1961.

For prescribing information, please see *PDR* or available literature.

Smith Kline & French Laboratories, Philadelphia
leaders in psychopharmaceutical research

SK&F



RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.

Also available without codeine as

'EMPRAZIL'®

TABLETS



BURROUGHS WELLCOME & CO. (U.S.A.) INC., TUCKAHOE, N.Y.



The good life–just what the doctor ordered

Sea and sun are both in his doctor's orders — so is that grapefruit he's eating with such gusto. Citrus fruit is a wonderful way for this patient or any patient to get his daily quota of vitamin C . . . to enjoy something good to eat, tasty and satisfying but not rich.

Not all patients are so lucky as to have retired to Florida, where they can pick citrus fruit off their own trees. But any patient anywhere can get the same benefits of the natural vitamin C in Florida oranges, grapefruit, and tangerines . . . thanks to modern methods of processing fresh fruit. Whether it is frozen, canned, or in cartons, 98% of the vitamin C content of the fruit is preserved.

Grapefruit and other citrus fruits filled with vitamin C are valuable in the nutrition of every age group. Among the teen-agers, vitamin C is one of the two nutrients most often low in the diet. Infants, too, need generous amounts of vitamin C; and they will take it readily when it comes to them in the form of delicious orange juice.

When your patient chooses *Florida* citrus, he can be sure of getting fruit filled with natural goodness and of just the right sweetness. Florida citrus is unexcelled because a State commission watches over the entire Florida citrus crop to see that it meets the world's highest standards for fresh, frozen, canned, or cartoned citrus fruit.

© Florida Citrus Commission, Lakeland, Florida





sign of infection?

symbol of therapy!

Ilosone® is better absorbed—It provides high, long-lasting levels of antibacterial activity—two to four times those of other erythromycin preparations—even on a full stomach. **Ilosone is bactericidal**—It provides bactericidal action against streptococci, pneumococci, and some strains of staphylococci. **Ilosone activity is concentrated**—It exerts its greatest activity against the gram-positive organisms—the offending pathogens in most common bacterial infections of the respiratory tract and soft tissues.

The usual dosage for infants and for children under twenty-five pounds is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours. For adults and for children over fifty pounds, the usual dosage is 250 mg. every six hours. In more severe or deep-seated infections, these dosages may be doubled. Ilosone is available in three convenient forms: Pulvules®—125 and 250 mg.*; Oral Suspension—125 mg.* per 5-cc. teaspoonful; and Drops—5 mg.* per drop, with dropper calibrated at 25 and 50 mg.

Lilly

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana. Ilosone® (erythromycin estolate, Lilly) *Base equivalent

232589

Ilosone works to speed recovery

asthma attack averted
. . . in minutes

patient protected
. . . for hours





Nephenalin®

(the dual-action anti-asthmatic tablet)

. . . works with nebulizer speed—provides four-hour protection

One NEPHENALIN tablet provides: *air in a hurry*—through sublingual isoproterenol HCl, 10 mg. *air for hours*—through theophylline, 2 gr.; ephedrine, 3/8 gr.; phenobarbital, 1/8 gr.

Dosage: Hold one NEPHENALIN tablet under the tongue for five minutes to abort the asthmatic attack promptly. Then swallow the tablet core for four full hours' protection against further attack. Only one tablet should be taken every four hours. No more than five tablets in 24 hours.

Supplied: Bottles of 50 tablets. For children: NEPHENALIN Pediatric, bottles of 50 tablets.

Caution: Do not administer NEPHENALIN with epinephrine. The two medications may be alternated at 4-hour intervals. NEPHENALIN should be administered with caution to patients with hyperthyroidism, acute coronary disease, cardiac asthma, limited cardiac reserve, acute myocardial damage, and to those hypersensitive to sympathomimetic amines. Phenobarbital may be habit forming. THOS. LEEMING & CO., INC., New York 17, N.Y.

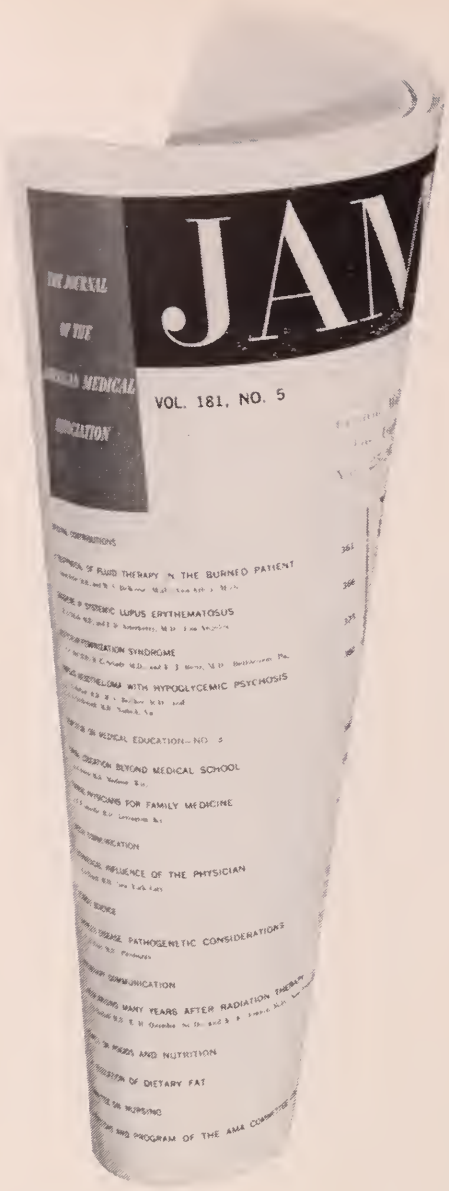
when you prescribe Carbrital® you prescribe sleep

With Carbrital (pentobarbital sodium and carbromal), patients get to sleep . . . and sleep throughout the night . . . awaken fresh and alert. Available as Kapseals® containing 1½ gr. pentobarbital sodium and 4 gr. carbromal; Half-strength Kapseals; Elixir containing 2 gr. pentobarbital sodium and 6 gr. carbromal per fluidounce. *This advertisement is not intended to provide complete information for use. Please refer to the package enclosure, medical brochure, or write for detailed information on indications, dosage, and precautions.*

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PARKE-DAVIS

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Because you are aware of the AMA statement on fat in the diet...

"Increasing the ratio of poly-unsaturated fat to saturated fat in the diet is the preferred method for treating the 'usual' hypercholesteremia."

From the Aug. 4, 1962 issue of The Journal of the American Medical Association.

Of all leading salad and cooking oils Safflower Oil has the highest ratio of poly-unsaturated fat to saturated fat. Safflower Oil is higher in recommended poly-unsaturates—lower in saturated fat than any other readily available oil or shortening.

When an adjustment in dietary ratio of saturated fat is indicated, Saff-o-life

you should be aware of this new, poly-unsaturated oil for cooking

Safflower Oil makes the substitution easy, appetizing, inexpensive.

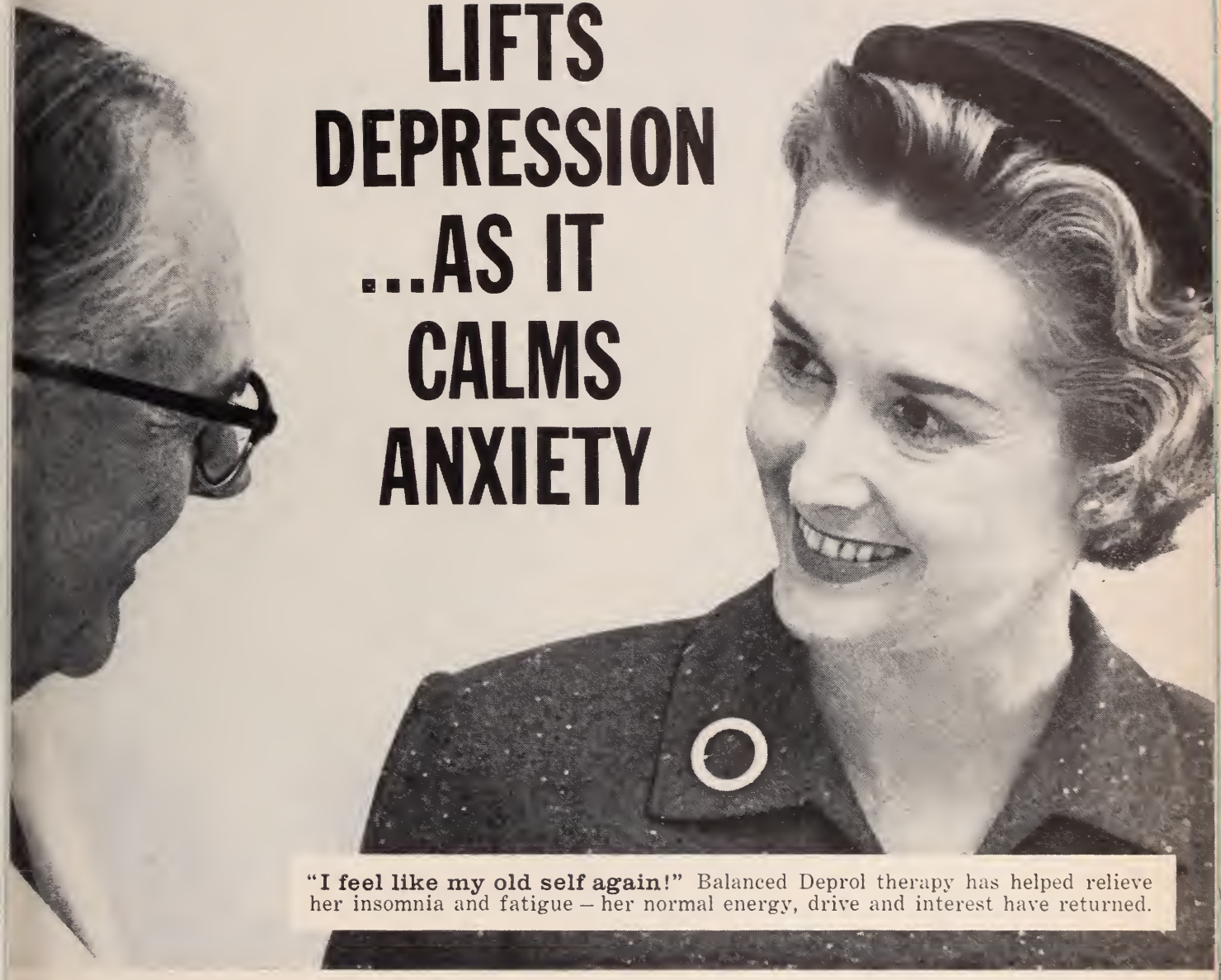
Physicians who wish recipes using Saff-o-life Safflower Oil are invited to write directly to: Professional Services Director, General Mills, Inc., Department 120, 9200 Wayzata Blvd., Minneapolis 26, Minnesota.

RATIO OF LINOLEATES* TO SATURATES *poly-unsaturated fats

SAFFLOWER OIL	9.0 to 1.0
CORN OIL	5.3 to 1.0
SOYBEAN OIL	3.5 to 1.0
COTTONSEED OIL	2.0 to 1.0
PEANUT OIL	1.6 to 1.0

A product of General Mills—Your assurance of quality and purity.

LIFTS DEPRESSION ...AS IT CALMS ANXIETY



"I feel like my old self again!" Balanced Deprol therapy has helped relieve her insomnia and fatigue – her normal energy, drive and interest have returned.

Brightens mood...relaxes tension

Energizers relieve depression





Deprol both lifts depression and calms anxiety





Tranquilizers reduce anxiety

Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this may be increased gradually up to 3 tablets q.i.d. With establishment of relief, the dose may be reduced gradually to maintenance levels.

Composition: 1 mg. 2-diethylaminoethyl benzilate hydrachloride (benactyzine HCl) and 400 mg. meprobamate.

Supplied: Bottles of 50 light-pink, scored tablets.

Write for literature and samples.

▲Deprol▲®

WALLACE LABORATORIES
Cranbury, N. J.

CD-7393



Flavor you never thought you'd get from any filter cigarette!

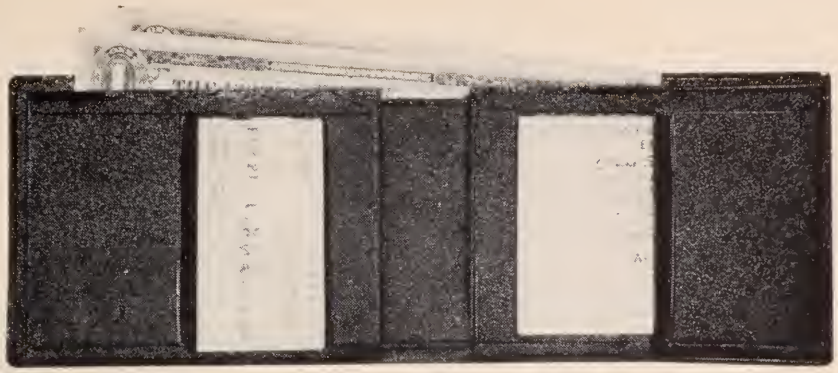
If you're hungry for flavor, Tareyton's got plenty—and it's *plenty good!* Quality tobaccos at their peak go *into* Tareyton. Then the famous Dual Filter *brings out* the best taste of these choice tobaccos. Try a pack of Dual Filter Tareytons—you'll see!

Dual Filter makes the difference



Product of *The American Tobacco Company* —
"Tobacco is our middle name" © A. T. Co.

DUAL FILTER *Tareyton*



Diagnosis: Rheumatoid arthritis

Complication: Pocketbook syndrome

New therapy: HEXADROL®

Dexamethasone 'Organon'

The corticosteroid unexcelled in clinical benefits with cost-to-patient greatly reduced

When you prescribe HEXADROL you give your patients all the clinical advantages of the newer, most effective and best-tolerated corticosteroids. At the same time, you provide relief of the Pocketbook Syndrome, a most common complication of therapy with a steroid of choice. This new and unique benefit of important savings to your patients results from Organon leadership in research, development, and new, more efficient manufacturing processes.

Clinical background? This steroid has a recorded history unequaled in scope and authoritativeness among all the newer corticoids. **Quality?** HEXADROL, brand of dexamethasone 'Organon'...your assurance of professional quality through research, production and control. **Dosage flexibility?** Tablets 0.75 mg. and new strength 0.5 mg., plus new form, Elixir (0.5 mg. per 5 ml.) now available to meet prescription needs.

Cost-to-patient? Greatly reduced! Why not check with your local pharmacist on prescription cost to your patients?

Organon

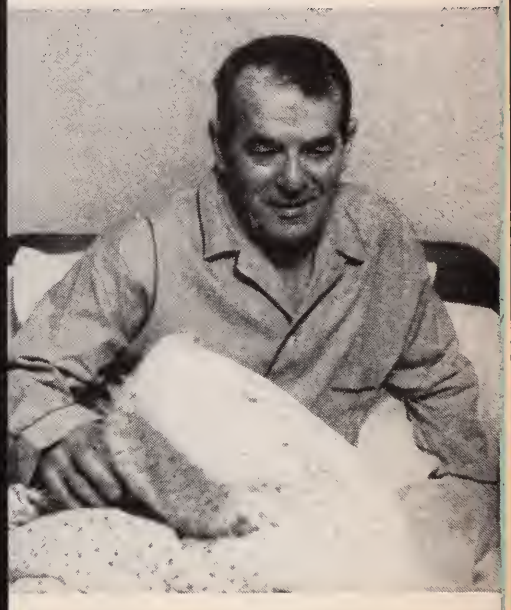


Thanks to 135 tiny "doses" throughout the

*Trademark, Reg. U.S. Pat.Off. Copyright 1962, The Upjohn Company



night, the arthritic wakes up comfortable



Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.



Welcome to another year of Lederle Symposia

Recognizing that the exchange of ideas is fundamental to medical progress, Lederle continues its Symposium program with the 11th year of scheduled meetings. Through these Symposia, sponsored by medical organizations with our cooperation, over 55,000 physicians have had the opportunity to hear and question authorities on important advances in clinical medicine and surgery. You have a standing invitation to attend any of these Symposia with your wife for whom a special program is planned.

SANTA BARBARA, CALIFORNIA
Saturday, November 3, 1962
Santa Barbara Biltmore Hotel

INDIANAPOLIS, INDIANA
Wednesday, November 7, 1962
The Marott Hotel

ANAHEIM, CALIFORNIA
Sunday, November 11, 1962
The Disneyland Hotel

KNOXVILLE, TENNESSEE
Thursday, November 15, 1962
Hotel Andrew Johnson

PHOENIX, ARIZONA
November 18, 1962
Westward Ho Hotel

NEW CITY, NEW YORK
Wednesday, November 28, 1962
Dellwood Country Club

LOS ANGELES, CALIFORNIA
November 29, 1962
Ambassador Hotel

GRAND RAPIDS, MICHIGAN
Saturday, December 1, 1962
Pantlind Hotel

NORFOLK, VIRGINIA
December 6, 1962
Golden Triangle Motor Hotel

DENVER, COLORADO
Sunday, January 13, 1963
The Cosmopolitan Hotel

FORT SMITH, ARKANSAS
Tuesday, January 15, 1963
The Holiday Inn

PORTLAND, OREGON
Thursday, January 31, 1963
The Sheraton-Portland Hotel

ANCHORAGE, ALASKA
Saturday, February 23, 1963
The Anchorage Westward Hotel

DETROIT, MICHIGAN
Wednesday, February 27, 1963
The Sheraton-Cadillac Hotel

WILMINGTON, DELAWARE
Saturday, March 9, 1963
Delaware Academy of Medicine

HUNTSVILLE, ALABAMA
Thursday, March 14, 1963
The Russel Erskine Hotel

FARGO, NORTH DAKOTA
Saturday, March 16, 1963
The Frederick Martin Hotel
(Moorhead, Minn.)

BELLINGHAM, WASHINGTON
Saturday, March 23, 1963
The Hotel Leopold

Lederle LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y.

1962 REPORT

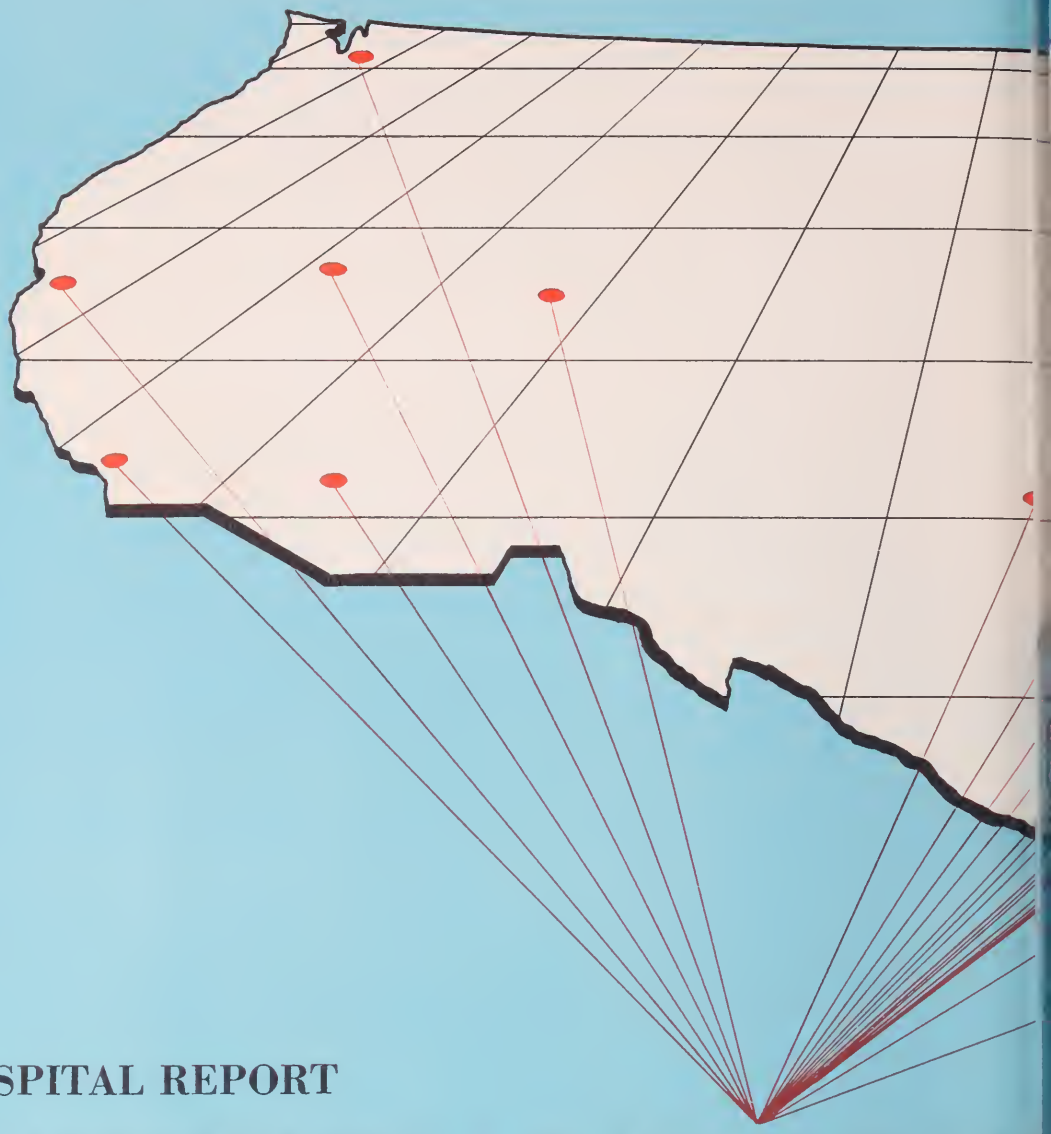
Nationwide hospital survey of bacterial susceptibility pattern in 9,872 cultures of common pathogenic bacteria isolated from patients

With each passing year, determination of antibiotic effectiveness becomes more critical, and shifting patterns of resistance emerge.

What is the *current* geographical status of *in vitro* bacterial susceptibility to antibiotics?

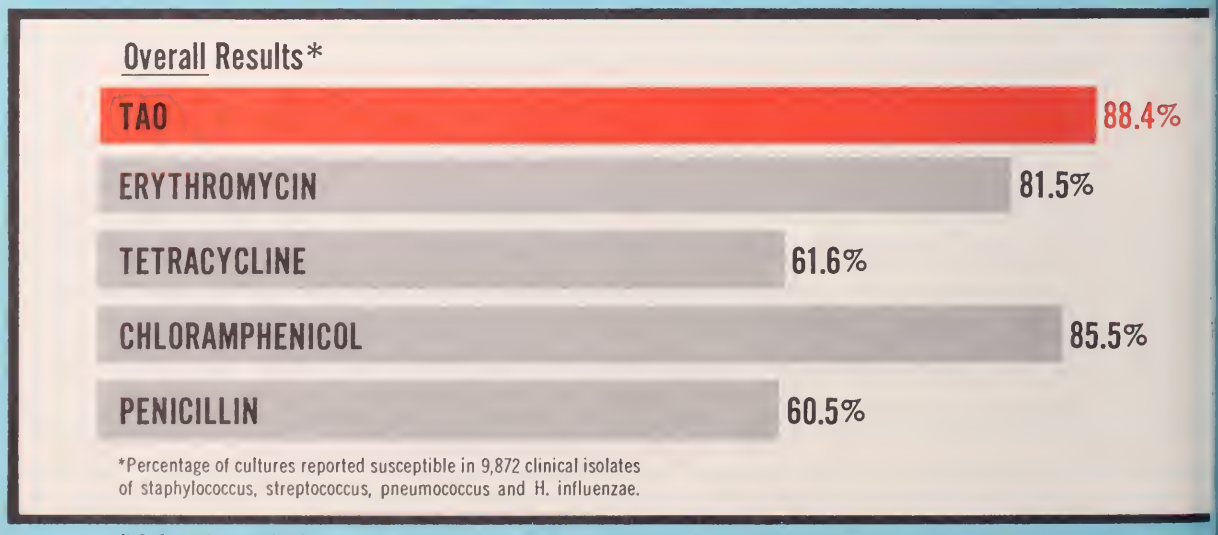
To get the answer, 23 geographically-dispersed hospitals contributed to a susceptibility survey. Each hospital supplied its own antibiotic sensitivity results which were then tabulated and statistically analyzed. The results of this unprecedented survey—covering five widely-used antibiotics against 9,872 pure cultures of common bacteria isolated from patients—are summarized on the next page.

CONCLUSION: **overall** results showed a higher percentage of bacterial susceptibility to TAO than to the other antibiotics tested. For the results with the specific bacteria see the following page.



1962 HOSPITAL REPORT

RESULTS FROM A NATIONWIDI



Of 6,725 staphylococcal isolates tested TAO showed a clear superiority; of 2,488 streptococcal and 463 pneumococcal isolates tested results were about equal. Of 196 H. influenzae isolates tested TAO was less effective.



SURVEY OF ANTIBIOTICS

Staphylococcus, streptococcus, pneumococcus and H. influenzae isolated from patients were the organisms challenged by five widely used antibiotics. All the antibiotics have been in clinical use at least five years: penicillin, erythromycin, triacetyloleandomycin, tetracycline and chloramphenicol. Only results of susceptibility studies on pure cultures were considered valid; the disc testing technique was utilized.[1]

Active against common pathogenic bacteria. Even after five years of general use, triacetyloleandomycin (TAO) is highly active against common pathogens. For specific information on the many TAO dosage forms, its uses in acute pediatric, skin and soft tissue, and respiratory infections, turn the page.



1. "Bacterial Susceptibility Patterns: A Geographic Survey." Fowler, J. Ralph, M.D., and Watters, John L., M.D. Scientific Exhibit presented at the Annual Meeting of the American Society of Clinical Pathologists, Chicago, Ill., August 31 to September 8, 1962.



TAO® an antibiotic that time hasn't changed

(triacetyloleandomycin)

You can expect TAO to produce a rapid, decisive response in acute common infections caused by most Gram-positive and some Gram-negative bacteria, including those resistant to many other antibiotics:

Acute respiratory infections: otitis media, sinusitis, tonsillitis, pharyngitis, bronchitis, lobar and bronchopneumonia, lung abcess, bronchiectasis.

Acute skin and soft tissue infections: furuncles, carbuncles, impetigo contagiosa, ecthyma, eczema, infected cysts, abscesses, infected contact dermatitis, cellulitis, infected traumatic or surgical ulcers and wounds.

Acute pediatric infections: particularly streptococcal.

Other acute genitourinary, gastrointestinal and miscellaneous infections: pyelonephritis, pyelitis, ureteritis, cystitis, urethritis (including gonococcal urethritis), acute salpingitis, endometritis, bartholinitis, staphylococcal enterocolitis, osteomyelitis, septic arthritis.

a TAO form for use . . . in patients of all ages . . . in home, office or hospital
TAO capsules (250 mg.; 125 mg.)
TAO Ready-Mixed Oral Suspension (raspberry-flavored) (125 mg./5 cc.)
TAO Pediatric Drops (100 mg./cc.)
Parenteral (as oleandomycin phosphate)
For complete prescription information, including dosage, indications and precautions, consult product brochure

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NEWS and ANNOUNCEMENTS



Adams

Dr. Harold Swanberg of Quincy has been elected Honorary President and Trustee for Life of the American Medical Writers' Association. The honor was conferred recently at the annual meeting of the Association in Washington, D.C. Dr. Swanberg was responsible for founding the Association in 1940 and served as its Secretary-Treasurer from 1940 to 1960.

Coles-Cumberland

Dr. John Levitsky, assistant professor of Preventive Medicine, University of Illinois College of Medicine, will be the featured speaker at the November 28 meeting of the Coles-Cumberland Medical Societies in Mattoon. Doctor Levitsky's subject will be "Genetics and Clinical Medicine". His appearance was arranged by the Scientific Speaker's Bureau.

Cook County

Cancer Test Planned

Plans for the first massive "Pap Smear" cancer screening in the Chicago area are now being shaped at Mandel Clinic of Michael Reese Hospital and Medical Center. Under a $175,000 grant form the National Cancer Institute of the United States Public Health Service the private center will administer the Papanicolaou test for cancer of the uterus to all women who apply for outpatient medical care during the next three years.

Appointments

Carl Nusbaum, former executive director of Gottlieb Memorial Hospital in Melrose Park, has been appointed Executive Vice President of Louis Burg Hospital in Chicago.

Dr. Arthur L. Barbakoff is the newly installed Director of the Health Service Department at Roosevelt University. The appointment fills the vacancy left by the resignation of Dr. Sam C. Udell.

Dr. Victor J. Mintek has been appointed Medical Director of River Edge Hospital in Forest Park, Illinois. Certified by the American Board of Psychiatry and Neurology and a member of the American Psychiatric and the Illinois Psychiatric Societies, Dr. Mintek is a 1946 graduate of the University of Chicago.

Elections

Dr. Earl E. Barth, professor and chairman of the department of radiology of Northwestern University Medical School was recently named president of the American Roentgen Ray Society. Dr. Barth has also held scientific offices as president and as chairman of the board of the American College of Radiology, president of the Chicago Roentgen Society and treasurer of the Inter-American Congress of Radiology.

The 1963 president of the Metropolitan Chicago Chapter of the American College of Surgeons will be Dr. Foster L. McMillan.

Dr. Bart Heffernan has recently been elected president of the Catholic Physicians Guild.

Ophthalmologist Tours World

Dr. Richard A. Perritt, Chicago ophthalmologist, is concluding an extended lecture and operating tour to various clinics and hospitals all over the world. He is accompanied by a group of surgeons from the International College of Surgeons.

He is carrying his own eye bank of dehydrated corneas which will be used in corneal transplants in the eyes of the poor. The corneas were donated by the International Eye Bank of Washington, D.C., of which the doctor is a

representative. The groups toured such countries as Hong Kong, Japan, India, Israel, Greece, Italy and Spain.

Honor Medical Students

Five Northwestern University Medical Students were honored recently at a Founders' Day Convocation commenorating the founders of the Medical School and formally opening the 105th annual session of the school.

Winner of the Frederick H. Rawson, Jr. scholarship of $500 for the outstanding sophomore student in medicine was Milton E. Block of Rockford, Illinois. Susan Anderson of Ohio, a senior medical student, received the George J. Dennis Phi Rho Sigma award of a $100 government bond for maintaining the highest scholastic average during the first three years of medical school. She also received the Roche award, given by Hoffman-LaRoche for outstanding scholastic achievement in the sophomore year.

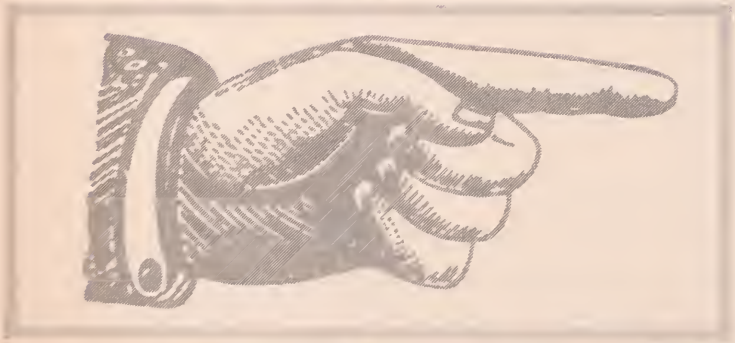
Thomas Neft of Nebraska received a Phi Rho Sigma award for the person who contributed most toward his national fraternity's winning a certificate of recognition for the highest scholastic average during the preceding school year. Thomas C. Brown of New York received the $100 Sigmund S. Winston award established by the Charles Pfizer company as the student who has done the best work in biochemistry during his freshman academic year. Philip E. Cryer, son of Dr. C. E. Cryer of El Paso, Illinois received the Phi Beta Pi-Leslie B. Arey award given for outstanding scholastic achievement in the study of anatomy. He also won the Thorward N. Christiansen Scholarship providing tuition for the sophomore year. It was presented in recognition of his excellent scholastic achievement during his freshman year.

Mental Health Clinic Opened

De Paul University has established a mental health clinic in the Frank J. Lewis Center in



more physicians specify







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night blindness
metaplasia of mucous membranes

downtown Chicago. Services will be offered to help fulfill the community's needs for psychiatric facilities as well as psychological counseling and therapy. Special emphasis is given to treatment of elementary and high school children presenting education and or emotion problems. Plans are underway to develop a program in psychotherapy under the supervision of a psychiatrist, soon to be appointed. At that time the clinic will work in cooperation with the State of Illinois mental health program, offering outpatient treatment to discharged state hospital patients.

Dr. Piszczek Receives Honorary IHA Membership

Dr. E. A. Piszczek member of the ISMS Board of Trustees, Chairman of the ISMS Policy Committee, past chairman of the Board of Trustees, and chairman of the CMS Polio Committee, was awarded lifetime honorary membership by the International Hospital Association at its 1963 legislative session. IHA is bestowing the award on Dr. Piszczek "In recognition of his leadership in efforts to improve patient care in Illinois hospitals through coordinated programs developed by our medical and hospital organizations."

Dr. Lutterback Receives International Honor

The Republic of Germany has awarded the Cross of Merit, first class, to Dr. Eugene F. Lutterbeck, Chicago roentgenologist and immediate past president of the Jackson Park Branch of CMS, for "his outstanding services in the field of radiology, for his human integrity and sympathy, rendering his personal help especially to needy immigrants and his unswerving dedication to promoting the intensive exchange of experiences and fruitful cooperation in the field of medical sciences between the United States and Germany in his capacity as Presi-

(continued on page 524)

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Photos Courtesy Smith Kline & French Laboratories

LEFT. At a bush dispensary at Nyambe in southern Tanganyika two Illinois medical students assist in the outpatient clinic. They are Ned Cowan, seated left, from Skokie, and Charles Taylor, standing right, from Crystal Lake. The two are senior classmates at the University of Illinois College of Medicine. With them is Dr. Marion Phillips, who is in charge of a mission hospital at Lulindi and who visits the bush dispensaries periodically. RIGHT. Ned Cowan, with a mother and child in the outpatient clinic at Mkomaindo Hospital at Masasi in Southern Tanganyika.

Future Doctors From Illinois Train In

World's Toughest Medical Classrooms

Three future doctors from Illinois extended their medical training this summer in the world's toughest medical classrooms — the outpatient clinics, wards, surgeries and diagnostic laboratories of hospitals in underdeveloped countries.

Ned N. Cowan of Skokie spent three months working at remote mission hospitals and dispensaries in the East African nation of Tanganyika.

David M. Cook of River Forest helped to inaugurate the work of a new Sisters of Mercy hospital in the steel making center of Jamshedpur in India.

These men are seniors in medical school. Cowan attends the University of Illinois College of Medicine and Cook the St. Louis University Medical School in St. Louis.

Their experiences abroad were made possible through a $240,000 program established by

BELOW. Charles Taylor and Ned Cowan help Tanganyikan medical assistants at Mkomaindo Hospital at Masasi put a plaster cast on a fractured leg. RIGHT. Ned Cowan weighs a Tanganyikan child while assisting in the child welfare program at Mkomindo Hospital. Instruction is given in nutrition and personal hygiene as the children are being examined. UNICEF supplied the scales for this program, together with powdered milk, drugs and operating theater equipment.









LEFT. David Cook, a medical student from River Forest, accompanies Sister Mary Liguori of the new Sisters of Mercy Hospital in Jamshedpur, India, on weekly rounds of a leper clinic near the city. The carriage is used to convey bandages and medications for the lepers. Cook is a senior at the St. Louis University Medical School. ABOVE. Arriving for the day at the Hospital, Cook scatters cattle grazing in the yard. The hospital, opened in June, consists of four Nissen huts, but is equipped with electricity to operate lights and fans. Jamshedpur is a steel manufacturing city and greatly in need of medical facilities such as Mercy Hospital.

Smith Kline & French Laboratories, Philadelphia, one of the nation's largest prescription drug firms. Smith Kline & French Foreign Fellowships, which are awarded by the Association of American Medical Colleges, Evanston, permit medical school seniors and newly graduated doctors to extend their medical knowledge and know-how by enabling them to assist at medical outposts in Africa, Asia and Latin America.

Cowan's main station was Mkomaindo Hospital at Masasi in the Southern Province of newly independent Tanganyika. His experiences included "safaris" to medical stations even more remote than 104-bed Mkomaindo Hospital. He also treated patients in leper clinics and in mud huts, performed ward rounds in the hospital and did a share of the work in the outpatient clinic, where on a busy day there might be more than 600 patients to be examined and treated for a variety of afflictions.

Thirty-five miles from Masasi is Lulindi Hospital, where a medical school classmate of Cowan's, Charles Taylor, a resident of Crystal Lake, Ill., also spent the summer learning by

(continued on next page)



LEFT. A principal activity at hospitals in the underdeveloped countries of Africa, Asia and Latin America is the outpatient clinic. Here, David Cook assists at the daily clinic.

RIGHT. Cook tips the monkey after a streetside performance in Jamshedpur, India.



doing. Taylor went to Tanganyika through the Bishop Anderson Foundation, an Episcopal church organization at the College of Medicine. Taylor and Cowan together took part in medical safaris to bush dispensaries. Personnel and patients at both Mkomaindo and Lulindi get along without electricity or running water.

Among the afflictions Cowan and Taylor treated were malnutrition, malaria, tuberculosis, intestinal parasites, measles, leprosy, trachoma, yaws, tropical ulcers, hernias, venereal diseases, crocodile and snake bites and even lion and leopard maulings.

In India, David Cook was welcomed by Sister Mary Liguori, a medical doctor and surgeon, and the only physician at the brand new Sisters of Mercy Hospital situated on the outskirts of Jamshedpur. This hospital, opened in June, consists of four Nissen huts, familiar to veterans of the Second World War. In addition to Cook, Sister Liguori's staff this summer consisted of two Sisters of Mercy, two Indian nurses and several male attendants.

Like Cowan and Taylor in Africa, Cook entered immediately into the work of the hospital. However, unlike the hospitals in Tanganyika, Mercy Hospital is situated in an industrial community. Consequently, the hospital is wired for electricity to operate lights and fans.

Cook assisted in the work of the outpatient clinic, which, because the hospital was still new, was visited by only forty or so patients daily. He also performed ward rounds, assisted in surgery and worked with Sister Liguori at the leper colony near Jamshedpur. The most common afflictions in the area are malnutrition and its complications, tuberculosis, malaria and leprosy.

(News — continued from page 521)

dent of the German American Medical Society of Chicago."

The award was presented October 24 by Dr. Guenther C. Motz, German Consul General of Chicago, on the occasion of the membership dinner of the German Medical Society. A history of this society, of which Dr. Lutterbeck is co-author, appeared in the September and October issues of the Illinois Medical Journal.

McLean

The McLean County Medical Society has recently established a Placement Bureau for women who desire employment in physicians' offices at no charge to either the physician or applicant. The Medical Society advertises for women who desire this type of work and then screens the applicants for openings which exists thus saving the practicing physician valuable time.

Stephenson

"Abuses of Antibiotic or Steroid Therapy" was the topic of Dr. Amos J. Brown at the November meeting of the Stephenson County Medical Society. Guests of the Society were members of the Carroll and Jo Davies societies.

General

Workshops on rehabilitation are being held throughout the state under the auspices of the Licensed Practical Nurse Association of Illinois, the Illinois Department of Public Health and the Illinois League for Nursing council on practical nursing.

Miss Edith Heide, nurse consultant on aging and chronic illness for the state Health Department, is workshop leader for the series, aimed at teaching practical nurses how to help people help themselves. Future workshop locations and their dates are Cairo, December 4-5; Chicago, January 8-9; Kankakee, February 4-5; and Decatur, March 4-5.

Because of Illinois' outstanding record in converting all county "poor farms" to county nursing homes, Miss Heide recently spent two days as a consultant to Indiana's state public health officials and county commissions. The conversion has not taken place in Indiana where "poor farms" still exist.

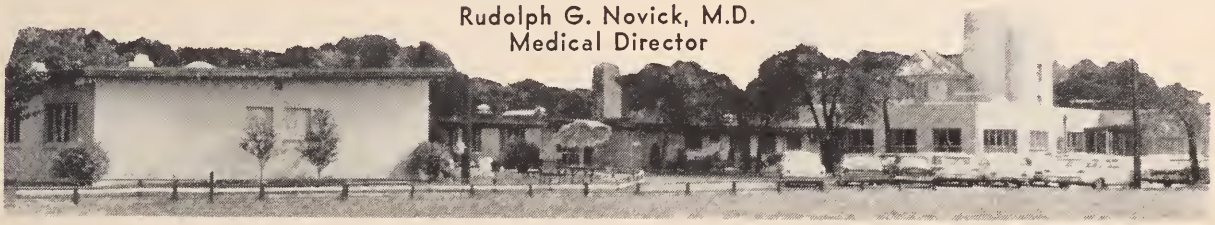
Forest Hospital

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- **New therapy building** with swimming pool, gymnasium, game room, beauty shop, living-bedroom combinations, an open area for selected patients. Milieu therapy.
- **Fifty-six attending psychiatrists,** a consulting staff of 30 in all specialties, and a house staff of seven.
- **Conducts an extensive** adjunctive therapy program, in which occupational, recreational and group work staff combine skills in a total therapeutic effort (with patient activities and staff attitudes specifically prescribed by the physician).
- **An adolescent program** under full time child Psychiatrist.

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Meeting Memos

ILLINOIS

The Illinois Society of Pathologists will hold their annual seminar meeting at St. Mary's Hospital, Decatur, Illinois December 1, 1962. The theme for the day will be "Non-Criminal Forensic Pathology." Guest speaker will be Dr. Rudolph J. Muelling, Jr., professor and director, Division of Legal Medicine and Toxicology, at the University of Kentucky College of Medicine.

The second of its post graduate seminar series on reproduction, "Abnormal Genetics and Physiology of Reproduction" will be presented by the Barren Foundation, a philanthropic organization, November 28 from 2-5 p.m. at the Dora De Lee Hall of Chicago Lying-in Hospital. Discussion topics will include Mutations and Reproduction and Abnormal Hormonal Physiology of Reproduction. Admission is Free.

NATIONAL

The American Medical Women's Association will hold a Scientific Session and House of Delegates meeting in Los Angeles, Nov. 29-39.

A Medicolegal Symposium is being planned for March 8-9 in Miami Beach by the American Medical Association.

Oro-Phonics:





DR. NOEL SHAW (center), past president of the Chicago and Illinois State pediatric societies, listens attentively to sound of respiratory disease transmitted by phone in oro-phonics exhibit. Exhibitors Dr. Harvey Kravitz (left) and Dr. Alvin Korach await Dr. Noel's comment.

The Sounds of Respiratory Disease by Telephone

To a pediatrician, a telephone may be more than a telephone — it may be a device for transmitting the sounds of respiratory diseases from patient to doctor. This fact has been dramatically demonstrated through a unique exhibit devised by two Chicago pediatricians, Dr. Harvey Kravitz and Dr. Alvin Korach, with the assistance of Mr. Martin Kite. Constructed specially by the Illinois Bell Telephone Company, the exhibit consists of telephone hookups to tape and telephone recordings of patients suffering from the common respiratory disorders. It demonstrates how a physician, by listening to his patient breathing into the telephone, can determine the rate of respiration and characteristic sounds encountered in these disorders. This technique is named "oro-phonics." Although not new, its practical value has been re-emphasized by the exhibit. Since respiratory infections are one of the leading causes of death in infants and children, the investigators feel that their oro-phonics technique should be mastered by the intern, resident and physician as well as the pediatric specialist.

Among the diagnostic sounds demonstrated in the exhibit are: 1) the common cold; 2) bronchiolitis; 3) pneumonia; 4) bronchial asthma; and 5) croup (laryngo-tracheo-bronchitis). The respiratory sounds of patients with these conditions transmit with good fidelity over the telephone. Although the investigators do not believe that oro-phonics is a substitute for direct physical examination, it can help the physician three important ways:

1. Determine whether it is necessary to see the child at home, at his office, or in the emergency room of the hospital;

2. Prevent the doctor from falling into a "semantic trap" caused by an inaccurate description of the ailment by the mother; and

3. Eliminate the language barrier which frequently exists between the doctor and his patient.

PG Courses

Postgraduate conferences on "New Concepts and Therapy in Hypertensive Disease" and "Respiratory Diseases" will be held November 30 at the State University of Iowa College of Medicine, Iowa City.

Crippled Children's Clinics

December 4	Belleville, St. Elizabeth's Hospital
December 5	Alton (Rheumatic Fever), Alton Memorial Hospital
December 5	Carmi, Carmi Township Hospital
December 5	Hinsdale, Hinsdale Sanitarium
December 5	Rock Island (Cerebral Palsy), Foss Home, 3808 8th Avenue
December 6	Carlinville, Carlinville Area
December 6	Springfield (General), St. John's Hospital
December 7	Chicago Heights (Cardiac), St. James Hospital
December 11	East St. Louis, St. Mary's Hospital
December 11	Peoria (General), Children's Hospital
December 12	Aurora, Copley Memorial Hospital
December 12	Champaign-Urbana, McKinley Hospital
December 13	Effingham (General), St. Anthony Memorial Hospital
December 14	Evanston, St. Francis Hospital
December 18	Effingham (Rheumatic Fever), St. Anthony Memorial Hospital
December 18	Peoria (General), Children's Hospital
December 19	Chicago Heights (General), St. James Hospital
December 20	Bloomington (General) (a.m.), St. Joseph's Hospital
December 20	Elmhurst (Cardiac), Memorial Hospital of DuPage County
December 20	Rockford, Rockford Memorial Hospital



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New Films Available

A slide film presentation, "Blood Component Therapy", has been made available on a loan basis to blood banks and hospitals by Fenwal Laboratories, 6301 Lincoln Ave., Morton Grove, Illinois.

"No Man Is A Stranger," a 29-minute film documenting the history and treatment of mental disorders on the island of Haiti, has been made available to professional groups by Schering Corporation.

A new film on microbes and the diseases they cause has been released by Shell Oil Company for free loan to interested medical groups and students. The film, titled "Unseen Enemies," took top honors in its category during the 1962 American Film Festival in New York. It was made with the support of the World Health Organization and was filmed mainly in underdeveloped areas of the world.

The National Foundation announced the availability of a new teaching film, "Chemical Balance Through Respiration." It illustrates basic facts regarding respiratory physiology with particular emphasis on gas exchange between lung and tissue and the maintenance of a stable hydrogen ion concentration through breathing and the buffering action of the blood.

September was Better Breakfast Month and the Cereal Institute is offering full color breakfast teaching filmstrips to promote eating a good breakfast. The films are available from the Cereal Institute, 135 S. LaSalle St., Chicago 3, Illinois.

Estrogen therapy in specific conditions is the topic of three new films available on loan from Ayerst Laboratories. "Atheroscloerosis and the Role of Estrogens," "Hemostasis and the Effect of Estrogens" and "The Menopause and the Role of Estrogens" are the result of round table conferences directed and supervised by the Excerpta Medica Foundation.

Physicians and medical students in the United States and abroad will have an opportunity to further their education under notable authorities in the field of medicine through a series of professional teaching films, titled "Clinical Entities."

The series is being produced by the Wayne State University College of Medicine under educational grants from Eli Lilly and Company.

Completed films include "Diabetes in Youth" featuring lectures and case studies by the staff of the Joslin Clinic, Boston; and "Angina Pectoris" and "Coronary Occlusion" by Samuel A. Levine, M.D., Harvard Medical School. Other films are being planned for this series.

The movies are being made available on a temporary free loan to medical teaching institutions — to medical schools, medical societies, hospitals, state, county, and city health departments and medical conventions.

Distribution is from the Audio-Visual Utilization Center, Wayne State University, Detroit 2, Michigan. The films also may be purchased at cost from the center.

A new medical motion picture "PKU Mental Deficiency Can Be Prevented" is available for showings without charge to medical groups and organizations. Produced under the supervision of Dr. Harry A. Waisman of the University of Wisconsin Medical School, the film presents case histories of two siblings, both with phenylketonuria. Requests for loan of film should be sent to the Medical Film Department, Ames Company, Inc., Elkhart, Indiana.

Prizes Offered

The Institute of Medicine of Chicago is offering an annual prize of $750 for the most meritorius investigation in medicine or in the specialties of medicine. The competition is open to graduates of Chicago medical schools who completed their internship or one year of laboratory work within a period of five years prior to January 1, 1962 excluding their terms of service in the Armed Forces. Manuscript must be submitted to the Secretary of the Institute of Medicine of Chicago, 86 East Randolph Street, Chicago 1, not later than December 1, 1962.

Film Catalog Available

The 1962 Public Health Service Film Catalog of medical-health related motion pictures and filmstrips has recently been published by the National Medical Audiovisual Facility. Single copies of the 78 page catalog are available to persons and institutions with teaching functions in the health sciences.

Rehabilitation Aid Published

The Institute of Physical Medicine and Rehabilitation, New York University Medical Center, has announced publication of Rehabilitation Monograph XXI, "Self-Help Devices," by Dr. Howard A. Rusk, director of the Institute, and Dr. Edward W. Lowman, clinical director and director of the Institute's Arthritis Self-Help Devices Office. The publication includes descriptions and illustrations of devices especially designed to help disabled persons to achieve independence in everyday aspects of living.

Deaths

Israel Appelbaum, retired Chicago, died October 7, aged 71. He was a captain in the Medical Corps during World Wars I and II.

Robinson Bosworth*, Rock Island, a graduate of Jefferson Medical College of Philadelphia in 1905, died September 10, aged 81. Certified in Internal Medicine in 1937, he had been director of the Rock Island County Tuberculosis Sanatorium since 1947. He was a fellow of the American Academy of Tuberculosis Physicians and a fellow of the American College of Chest Physicians.

Arthur Brosner, Pleasant Hill, a graduate of the Medical School of the University of Vienna in 1935, died September 17, aged 52.

Claire E. Carr*, Chicago, a graduate of the University of Illinois College of Medicine in 1928, died October 3, aged 65. He had taught surgery at Northwestern University for 30 years and was a fellow of the International College of Surgeons.

Herman G. Eichhorn, retired, Peoria, a graduate of Northwestern University Medical School in 1896, died September 28, aged 90.

Kate Armstrong Ewan, Cuba, a graduate of Woman's Medical College of Pennsylvania in 1906, died May 4, aged 82.

(continued on page 530)

Nervous
Geriatrics



Mental
Custodial

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Charles Anton Freund°, Chicago, a graduate of Loyola University School of Medicine in 1918, died June 13, aged 67.

Charles L. Garris°, retired, Eldorado, a graduate of Beaumont Hospital Medical College, St. Louis, in 1911, died September 30, aged 75. A veteran of World War I, he became the first medical director in residence at Stateville Prison where he and Dr. Joseph H. Boggs carried on research in hepatitis. He was a member of the ISMS Fifty Year Club.

Paul Hardinger°, Mattoon, a graduate of the University of Illinois College of Medicine in 1919, died September 8, aged 68. He had served for several years as secretary for the Coles-Cumberland County Medical Society. During World War II he served as an examining officer for selective service.

John Kazak, Aurora, a graduate of the University of Illinois College of Medicine in 1934, died September 29, aged 58.

Robert W. Lennon°, Joliet, a graduate of Rush Medical College in 1929, died October 3, aged 58. Certified in Ophthalmology in 1940, he was a fellow of the American College and International College of Surgeons and was a diplomate of the American Board of Ophthalmology.

Rocco V. Lobraico, retired, Chicago, a graduate of the University of Illinois College of Medicine in 1912, died October 9, aged 73.

James Austin Long°, Grand Ridge, a graduate of Chicago Medical School in 1940, died September 11, aged 54.

Zoda Lumley, retired, Wood River, a graduate of Washington University School of Medicine, St. Louis, in 1902, died September 20, aged 80. A captain in World War I, he was the holder of the Distinguished Service Cross for his service with the medical unit in the front lines at St. Mihiel.

Stanley W. Marchmont-Robinson°, retired, Chicago, a graduate of Loyola University School of Medicine in 1931, died September 23, aged 68.

Laurence Hampson Mayers°, Chicago, a graduate of the University of Illinois College of Medicine in 1915, died September 22, aged 75. He served as a first lieutenant in World War I and was a former associate professor of medicine at Northwestern University Medical School. He was certified in internal medicine in 1937 and was an emeritus member of ISMS.

Mark S. Nelson°, Canton, a graduate of Northwestern University Medical School in 1924, died September 25, aged 67.

Irving Perrill°, Chicago, a graduate of Rush Medical College in 1910, died January 30, 1962, aged 77. He was an emeritus member of ISMS.

Vito V. Pisani°, retired, Chicago, a graduate of Bennett Medical College in 1914, died October 4, aged 79. A veteran of World War I, he had been on the staff of the Municipal Tuberculosis sanitarium for 27 years and retired as assistant medical superintendent.

Joseph M. Plestina, retired, Berwyn, a graduate of Rush Medical College in 1939, died October 1, aged 47. He was a combat medical officer in World War II.

Roland F. Rembe°, Northbrook, a graduate of Northwestern University Medical School in 1927, died September 21, aged 62.

Robert L. Reynolds°, Franklin Park, a graduate of Rush Medical College in 1911, died September 30, aged 76. He was the village health officer of Franklin Park.

Riley Henry Rogers, Jr., Chicago, a graduate of Northwestern University in 1926, died October 2, aged 63.

Weseley J. Ronny, retired, Chicago, died October 1, aged 92.

James E. Scholes°, Bradford, a graduate of Northwestern University in 1919, died September 12, aged 73.

Willis Silverstein°, retired, Chicago, a graduate of University of Illinois College of Medicine in 1916, died September 24, aged 70. He had served as a Board of Health Officer for 35 years and was a veteran of World War I.

Joseph Henry Smith, Riverton, a graduate of St. Louis University School of Medicine in 1912, died September 21, aged 86. He had been the oldest practicing physician in Sangamon County.

Michael Thomas Strikol°, retired, Chicago, a graduate of Loyola University School of Medicine in 1918, died September 26, aged 70. He was former chief of staff of the Holy Cross Hospital and the Chicago Medical College.

°*Indicates member of Illinois State Medical Society.*



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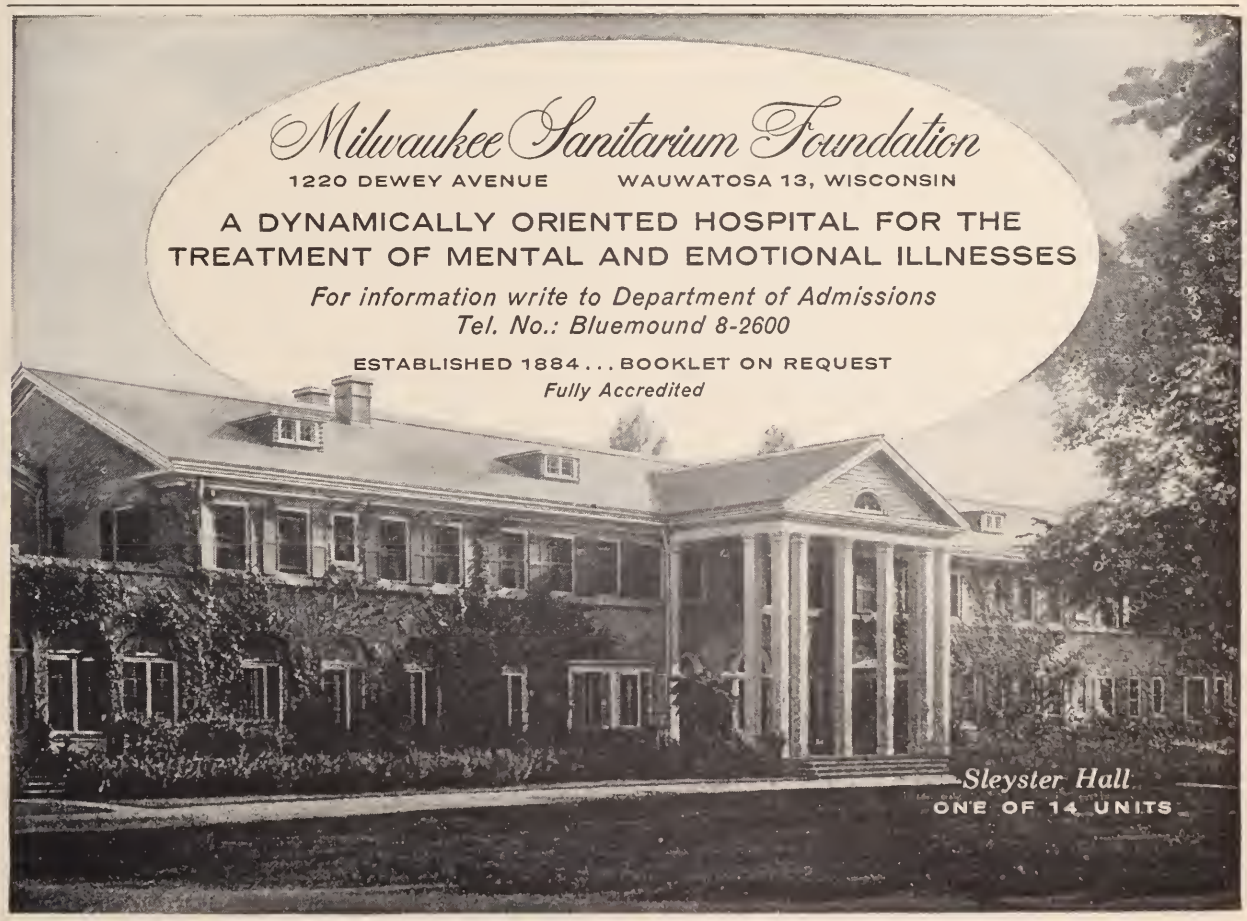
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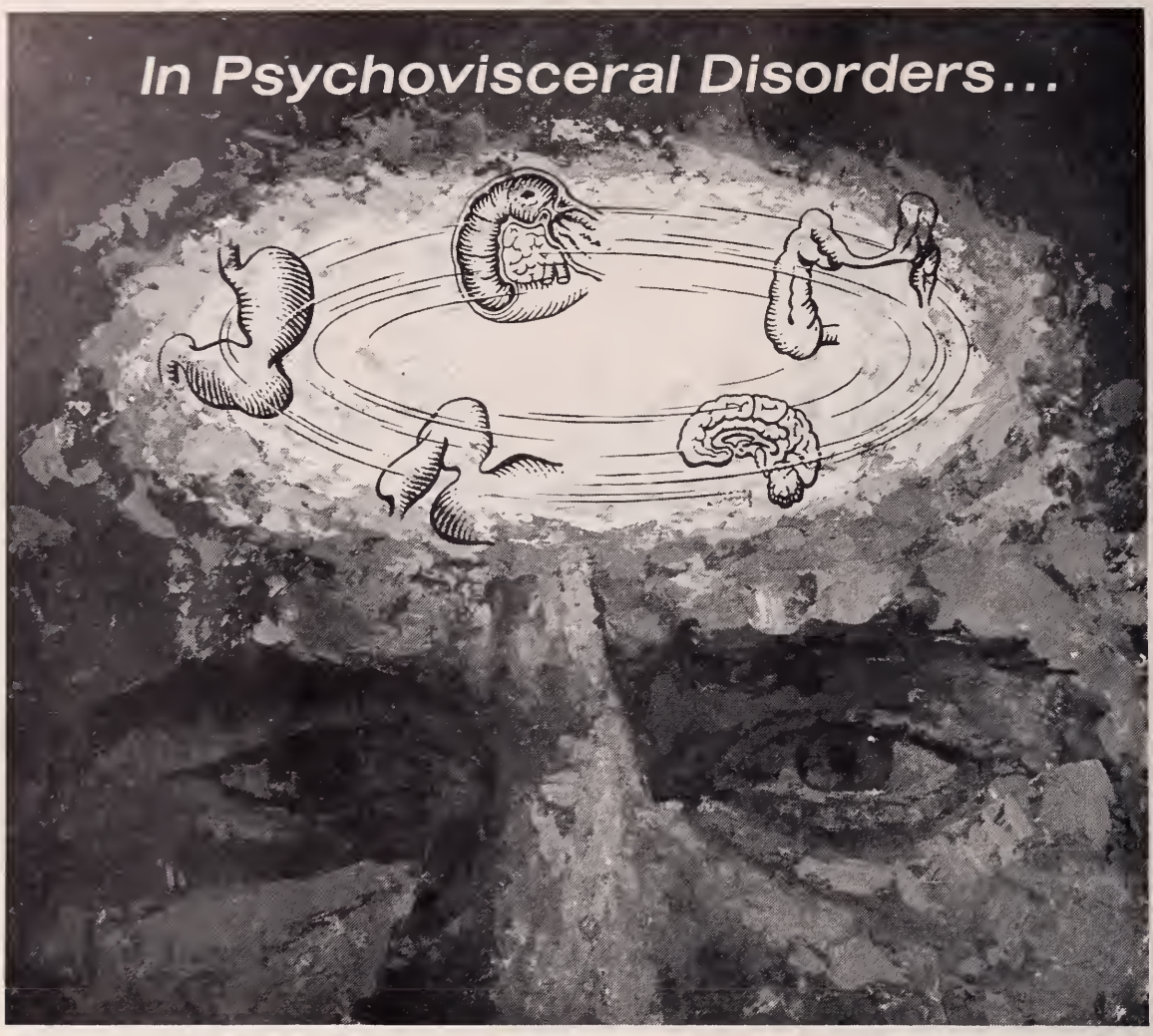
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1. Clinical and Physicians' Reports to the Medical Department, Armour Pharmaceutical Company, 1960-1961. 2. Taub, S. J.: Clin. Med 7:2575, 1960. 3. Billow, B. W.; Cabodeville, A. M.; Stern, A.; Palm, A.; Robinson, M., and Paley, S. S.: Clinical Experiences with Oral Anti-inflammatory Enzyme for Intestinal Absorption. Southwestern Med. *41*:286, 1960.

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AS I SEE IT FROM '360'

By Robert L. Richards
Executive Administrator

A Giant Step Forward in 1963

Two and one-half years have passed since our original staff plan was approved. During that time the basic needs of the Society have been met, and the program objectives conceived and implemented. However, the recent termination of Mr. Oblinger's services as Director of the Springfield Regional Office has provided an opportunity to reassess staff assignments and achieve more efficiency with less administrative costs.

A plan of staff reorganization recently approved by the Board of Trustees was made effective November 13, 1962. It consists basically of the following changes:

1. Designation of Mr. Roger N. White, Director of Medical Services and Economic Research, as Assistant Executive Administrator. This assignment not only provides counsel and direction for other staff members during the absence of the Executive Administrator, but also provides clearance of important items in unusual situations if he is unavailable.

2. Assignment of legislative program supervision to Mr. White. This includes supervision of the Springfield office, where the heart of our legislative interest lies when the General Assembly is in session. Further activities of the staff personnel in that office will be developed by Mr. White, including field service to the downstate counties.

3. Addition of a Legislative Representative to Mr. White's staff. Mr. Harold Widmer, finishing his fifth term as State Representative from Freeport, will assume this position on a full-time basis.

4. Management of the Springfield Regional Office is now under the supervision of Mr. Walter Farrand. Mr. Farrand, as an attorney, will screen all proposed legislation and provide the administrative services for Mr. Widmer in his contacts with members of the General Assembly and the members of the medical profession.

5. General Legal Counsel has been retained in Springfield. The legal firm of Pfeifer, Fixmer & Gasaway is available on a stand-by basis for the use of ISMS officers and the Executive Administrator. The firm will be used only when necessary, and when Mr. Farrand requires additional consultation.

6. Mr. William E. Riddle, Project Coordinator of the new Educational and Scientific Foundation, has been assigned to Mr. Boeck's staff. Mr. Riddle is a trained biochemist; therefore in addition to his assignment with the Foundation, he will be of assistance to Mr. Boeck in his scientific activities, and will be working with his scientific committees.

With the addition of Mr. Riddle to Mr. Boeck's staff, Mr. Boeck will assume responsibility for other committees previously assigned to Mr. Oblinger, namely: the Committee on Impartial Medical Testimony, the Liaison Committee to the Illinois Bar Association, Occupational Health, and Narcotics and Hazardous Substances. Also assigned to Mr. Boeck will be the special committee on a Medical Museum, and the administrative services to the Board of Directors of the Educational and Scientific Foundation.

The above changes will result not only in a more effective organization with tighter controls and more adequate supervision, but also will provide the necessary training ground for staff succession, and the security of the Society.

With the announcement of these changes, comes my sincere hope that staff activities have been, and will continue to be, important factors in your successful practice of medicine. From all of the staff and myself, heartiest wishes for a Happy and Prosperous New Year.

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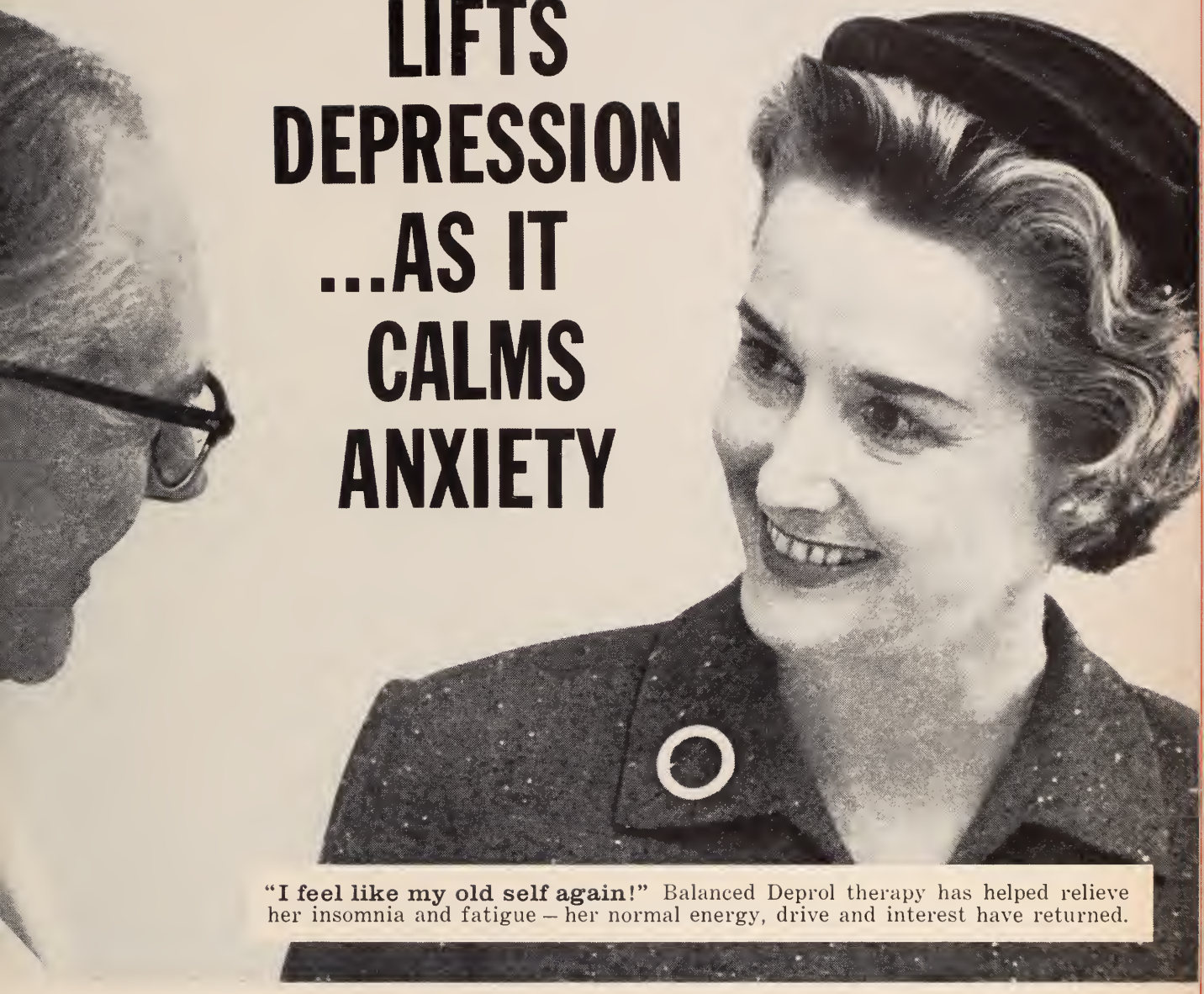
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Abstract of Board Actions

Meeting of November 11, 1962



FINANCE COMMITTEE REPORTS

The importance of procuring new membership was stressed. The Society may lose a delegate to the AMA if active memberships fall below 10,000. Membership now stands at 10,144.

MAJOR CHANGES IN ILLINOIS NURSING ACT

Proposed changes in the Illinois Nursing Act have been approved by the Committee on Nursing and referred by the Board of Trustees to the Medical Service Committee for study. These changes include new definitions of professional and practical nursing; educational requirements; mandatory licensure for practical nurses; a requirement that all schools of practical nursing be under the jurisdiction of the Illinois Nursing Act; upgrading requirements for practical nurses; removal of citizenship as a requirement for licensure; application for licensure; qualifications of members of the committee of nurse examiners and the nursing executive; and inactive status.

COMMUNITY HEALTH WEEK REPORTED SUCCESSFUL

Community Health Week was reported as a success in many areas of the State, especially St. Clair County where more than 20,000 people visited a health fair which was coordinated with the week.

FILM ON STROKE PATIENT TO BE MADE AVAILABLE

A film dealing with the rehabilitation of the stroke patient has been completed by the Committee on Aging in cooperation with the Department of Public Health. Copies will soon be available through the Illinois Department of Public Health. Because this approach is so excellent it is possible that the film will be internationally recognized and shown.

HR-10 REVIEWED

HR-10 recently enacted by federal legislation under the official title "Self Employed Individuals Tax Retirement Act of 1962" provides benefits in two ways: (1) A tax deduction on one-half of amounts set aside under qualified retirement plans up to 10 per cent of annual income ($2,500 maximum contribution and $1,250 maximum deduction); (2) Tax deferment on earnings from the retirement contributions (additional sums may be set aside for earnings deferment when employees are included in contributing plans). A booklet explaining the benefits is available from the Division of Medical Economics.

BOARD APPROVES OFFICIAL SPONSORSHIP

The Board approved recommendations of the Committee on Medical Economics, as reported by Dr. Wolf, approving in principle official society sponsorship of acceptable group programs for retirement-investment and insurance including appropriate endorsement in connection with enrollment. The Committee has been authorized to conduct negotiations on behalf of the Society leading to the development of specific proposals for group funding of retirement contributions under HR-10 and a Society sponsored accident-sickness program for consideration by the Board of Trustees at the earliest possible time. Physicians are advised to await further announcement from the State Society before moving ahead on HR-10 Plans.

PUBLIC SAFETY COMMITTEE OBJECTS TO PROPOSED LEGISLATION

The Secretary of State has suggested legislation which would require physicians to report to the State with respect to any patients having physical or mental conditions affecting their ability to drive a motor vehicle. Dr. Kowalski, chairman of the Committee on Public Safety, made the following committee observations on the proposal: (1) It is recognized that many individuals do not regularly consult a physician and this legislation offers no method of checking these people; (2) It is feared that individuals suspecting that they have such a condition would avoid seeing a physician for fear of being reported and (3) the physician should not be made a policeman in these matters.

PUBLIC RELATIONS REPORTS FREE TIME ON RADIO AND TV

Dr. Sweeney, Chairman of the Public Relations Committee, reported that radio and TV stations have been generous with their use of public service messages with an estimated total of $250,000 worth of time. NBC-TV in Chicago reported using 35 of the Society's spot announcements in a three month period.

IPAC ACTIONS

The Board reaffirmed the Committee's position that IPAC should pay for preventive medical services including family planning.

In an effort to control rising drug costs under IPAC, an ad hoc committee was appointed to draft a suitable drug formulary to use under the program. It is expected that this committee will complete its work within a few months so that the formulary will be ready by early 1963.

MEDICARE CONTRACT SIGNED

Dr. Lull, President, reported that the Medicare contract has been signed for another year but the disappointment of the State Society has been officially expressed regarding recommended increases in fees which were not accepted. More notice for consideration of a new contract upon expiration of the present one was requested.

NUTRITION COMMITTEE REPORTS RECENT SUCCESSES

Dr. Paul Dailey, Chairman of the Nutrition Committee, reported on recent meetings which have shown the need and interest of Illinois physicians in Nutrition. More than 400 persons attended the Chicago symposium sponsored by the Institute of Food Technology, the Chicago Nutrition Association and the ISMS Committee on Nutrition. Attendance at the Alton Symposium was more than 250. Dr. Dailey expressed his appreciation for the special 28 page reprint being made available by the Illinois Medical Journal from the papers printed in the November issue.

DISASTER MEDICAL CARE PLANS EDUCATIONAL PROGRAM

Dr. Max Klinghoffer, Chairman of the Disaster Medical Program, reported that the State Department of Public Health has recently appointed a full-time man to cooperate with the actions of the Committee. Teaching material will be mailed to county medical societies shortly. WTTW, Chicago TV station, is planning an educational series, featuring Dr. Klinghoffer, on Disaster Medical Care.

LOCAL AND DISTRICT COMMITTEES ON AGING

Dr. Edward Cannady reported that county medical society presidents have been requested to appoint Committees on Aging to implement programs at the local level dealing with stroke, home care, councils on aging, educational programs on financing medical care, importance of assistance to the aged in social activities and other phases of the aging. Representatives from the county committees will be asked to form District committees to further the statewide program.

PRESIDENT REPORTS MEETING ACTIVITIES

Dr. George Lull reported that he had attended the annual meeting of three state medical societies and that he has been a guest of the Southern Illinois Medical Society meeting. He has made at least four appearances before other groups, radio and TV audiences.

AT YOUR SERVICE*

For The Rehabilitation Phase Of Your Patient's Recovery



. . . a team concept of intensive, specialized treatments for:

• hemiplegia • paraplegia • quadriplegia • amputations • arthropathies • degenerative diseases of the nervous system • traumatic disabilities of the hand • also evaluation for cardiac work classification.

*Admission by Medical Referral—referring physician becomes consulting member of the team, receives interim progress reports and at the discharge of his patient, a summary with recommendations for continued treatment. Out-patient therapy is encouraged.

DIRECT INQUIRIES TO: M. R. PASSARELLI, CO-ORDINATOR—ROOM 112

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an accredited hospital, affiliated with Northwestern University

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For your elderly patients...

an effective GERIATRIC antiarthritic with distinctive Safety Factors

When arthritis afflicts the elderly, it often poses a critical problem in the choice of an effective antiarthritic that will not aggravate other common geriatric conditions . . . such as osteoporosis, hypertension, edema, hyperglycemia, peptic ulcer, renal, cardiac or hepatic damage, latent chronic infection, or emotional instability.

Pabalate-SF, the geriatric antiarthritic, is specially indicated for such patients.

As Ford and Blanchard have reported,[1] Pabalate-SF has "a pronounced antirheumatic effect in the majority of patients with degenerative joint diseases." It produces "a more uniformly sustained [salicylate blood] level for prolonged analgesia and, therefore, is superior to aspirin in the treatment of chronic rheumatic disorders."

Yet Pabalate-SF is marked by distinctive safety factors: its potassium salts cannot contribute to sodium retention . . . its enteric coating assures gastric tolerance . . . and its clinical record reflects none of the serious reactions frequently precipitated by therapy with corticosteroids or pyrazolone derivatives. It has no contraindications except personal idiosyncrasy.

1. Ford, R. A., and Blanchard, K. Journal-Lancet 78:185, 1958.

Formula: In each persian-rose enteric coated tablet: potassium salicylate 0.3 Gm., potassium para-aminobenzoate 0.3 Gm., ascorbic acid 50.0 mg.

Also available:
PABALATE, when sodium salts are permissible
PABALATE-HC, for conservative steroid therapy.

A. H. ROBINS CO., INC. • Richmond, Virginia

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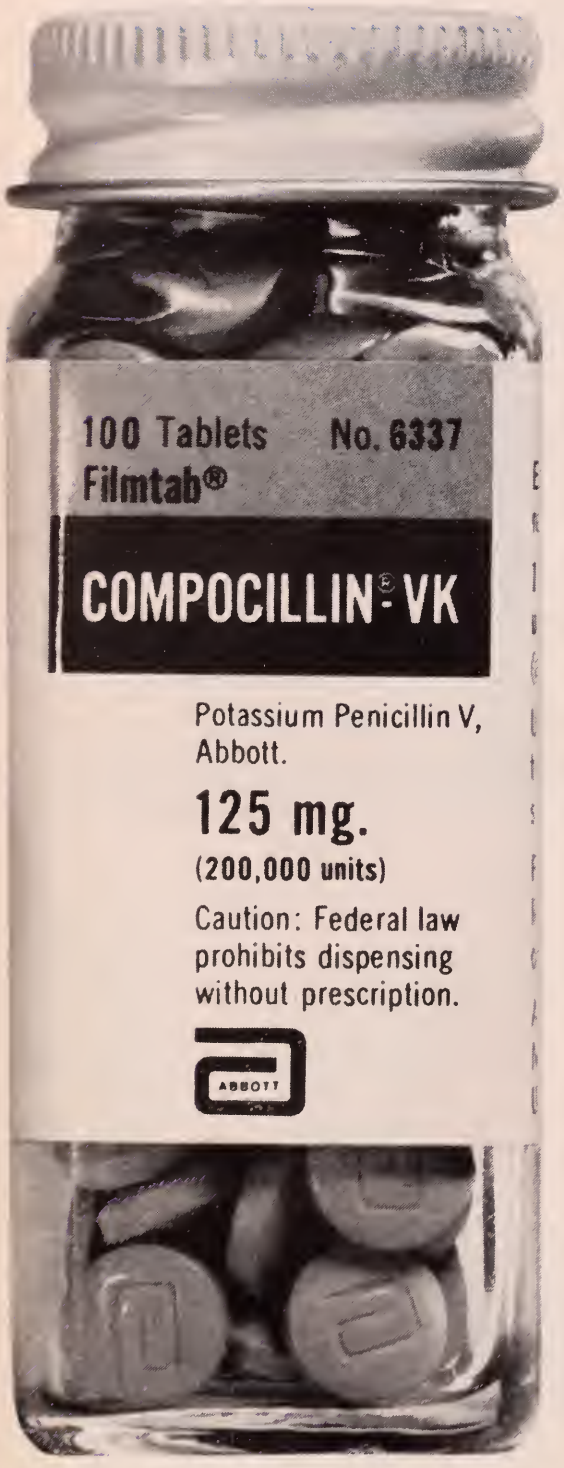
Pabalate®-SF

—the new, convenient way to prescribe **PABALATE-SODIUM FREE**

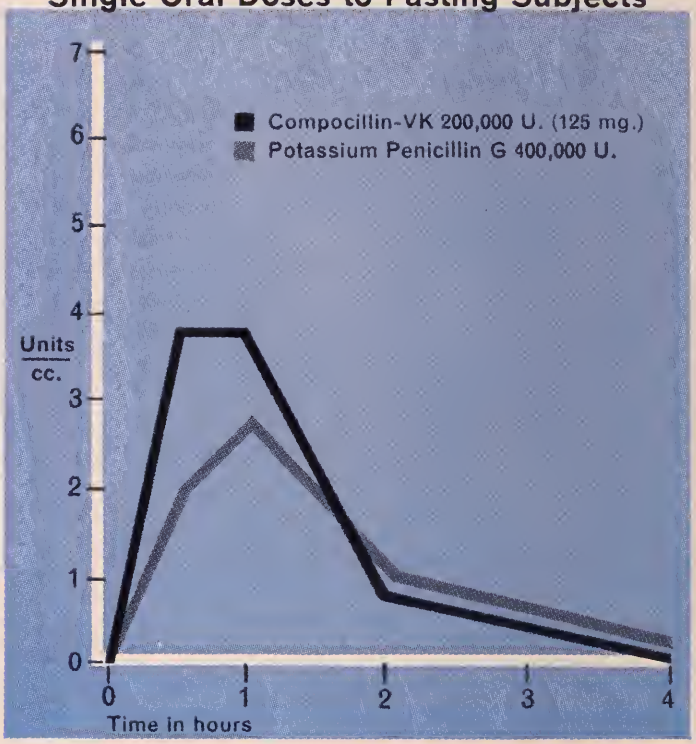


Here's a penicillin that gives you...

PATIENT ECONOMY WHEN YOU WANT IT



Single Oral Doses to Fasting Subjects*



Consider milder bacterial infections

An example might be a respiratory infection. Here economy could be a definite factor in your thinking. In the chart above, you'll see that 200,000 units (125 mg.) of Compocillin VK produces blood levels at least equal to those obtained with 400,000 units of oral penicillin G potassium. This means that in less severe infections, Compocillin-VK may be given at *half* the dosage needed with oral penicillin G—with no sacrifice in blood levels. In these cases, the cost of Compocillin-VK therapy will be no more—and often will be less—than treatment with oral penicillin G.

Compocillin-VK—the original potassium penicillin V • In Filmtab (125 and 250 mg.) and cherry-flavored Granules for Oral Suspension

Filmtab—Film-sealed tablets, Abbott: U.S. Pat. No. 2,881,085

PEAK EFFICIENCY WHEN YOU NEED IT

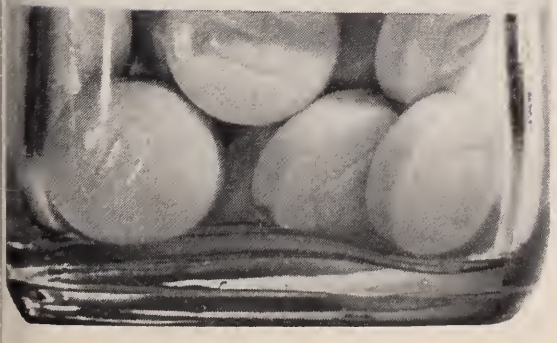


Potassium Penicillin V, Abbott.

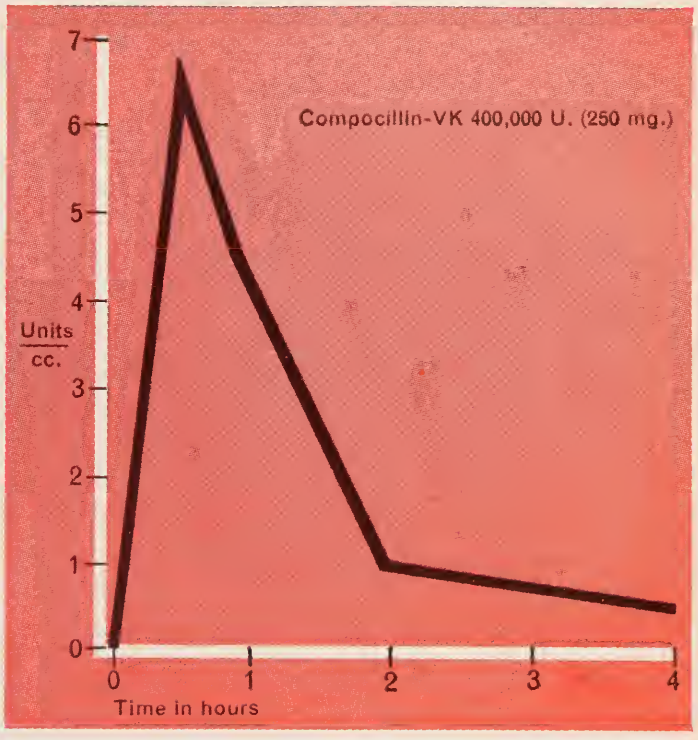
250 mg.
(400,000 units)

Caution: Federal law prohibits dispensing without prescription.

ABBOTT



Single Oral Doses to Fasting Subjects*

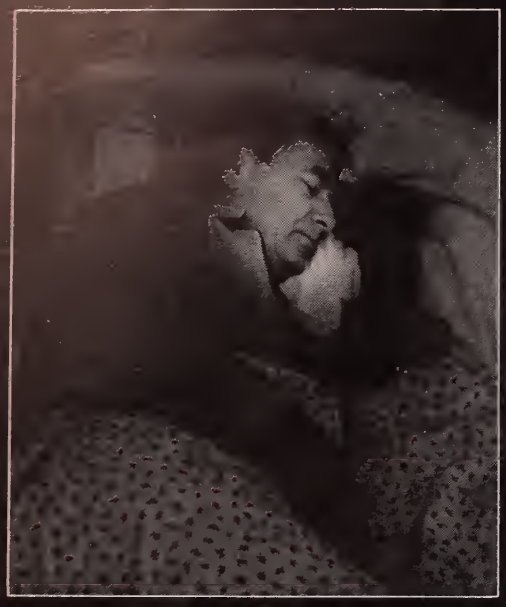


Then, for severe infections...

. . . where your primary concern is high peak serum concentrations, you can prescribe Compocillin-VK at *full therapeutic dosage* and get the maximum antibacterial activity possible with an oral penicillin. The chart above shows the rapid peak blood levels obtained with 400,000 units (250 mg.) of Compocillin-VK. Actually, these peaks occur faster—and are higher—than those obtained with intramuscular penicillin G. Indeed, Compocillin-VK has been used in cases previously reserved for parenteral treatment. The safety advantage (oral vs. injectable) goes without saying.

*Chart data from two separate studies completed by the Microbiologic and Medical Departments of Abbott Laboratories.

ABBOTT LABORATORIES NORTH CHICAGO, ILLINOIS

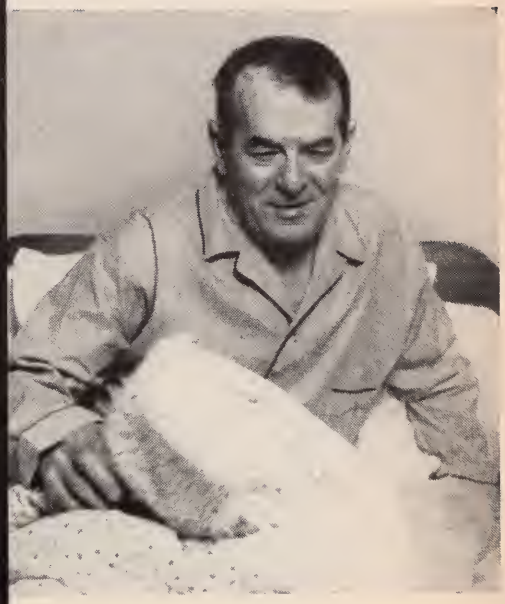


Thanks to 135 tiny "doses" throughout th

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ight, the arthritic wakes up



comfortable

Morning stiffness may be reduced or even eliminated as a result of therapy with the only steroid in long-acting form. And the slow, steady release of steroid makes it possible in some cases to reduce the frequency of administration and/or the total daily steroid dosage.

Medrol* Medules*

Each hard-filled capsule contains Medrol (methylprednisolone) 4 mg. Also available in 2 mg. soft elastic capsules.

Supplied in bottles of 30 and 100.

Upjohn

The Upjohn Company, Kalamazoo, Michigan

Reminder advertisement.
Please see package insert for detailed product information.

RELIEVE THE COLD SUPPRESS THE COUGH WITH NEW

'EMPRAZIL-C'

TABLETS

ANTITUSSIVE ▪ DECONGESTANT ▪ ANALGESIC

Each tablet contains:

Codeine Phosphate*	15 mg.
'Sudafed'® brand Pseudoephedrine Hydrochloride	20 mg.
'Perazil'® brand Chlorcyclizine Hydrochloride	15 mg.
Acetophenetidin	150 mg.
Aspirin (Acetylsalicylic Acid)	200 mg.
Caffeine	30 mg.

*Warning—may be habit forming.

Complete literature available on request.

Also available without codeine as

'EMPRAZIL'®

TABLETS



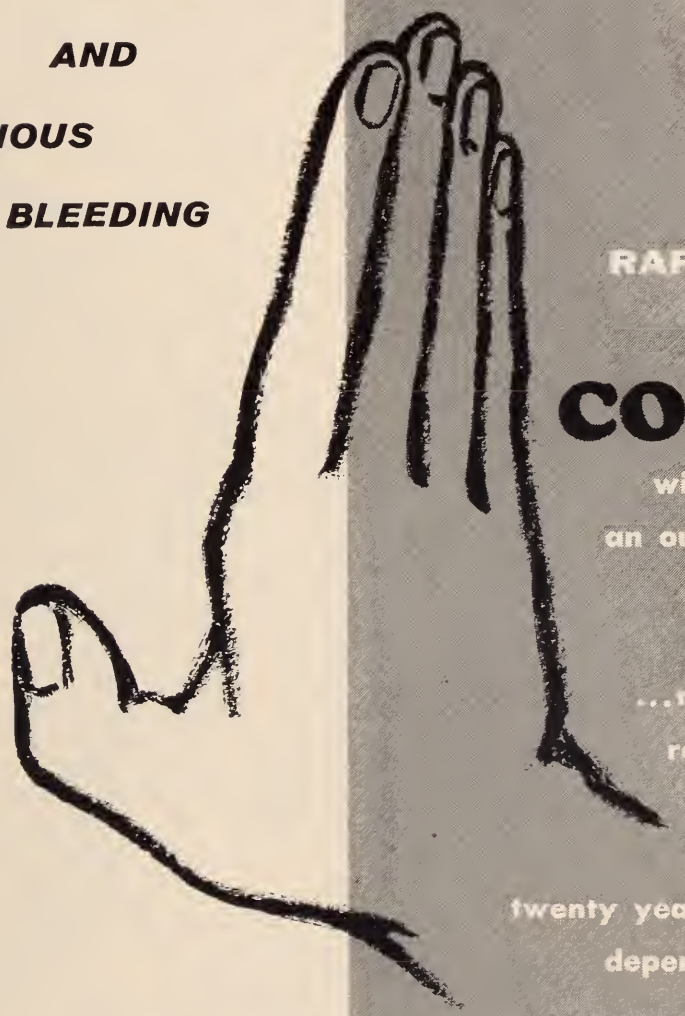
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parenteral hemostat

an aqueous solution of oxalic and malonic acids

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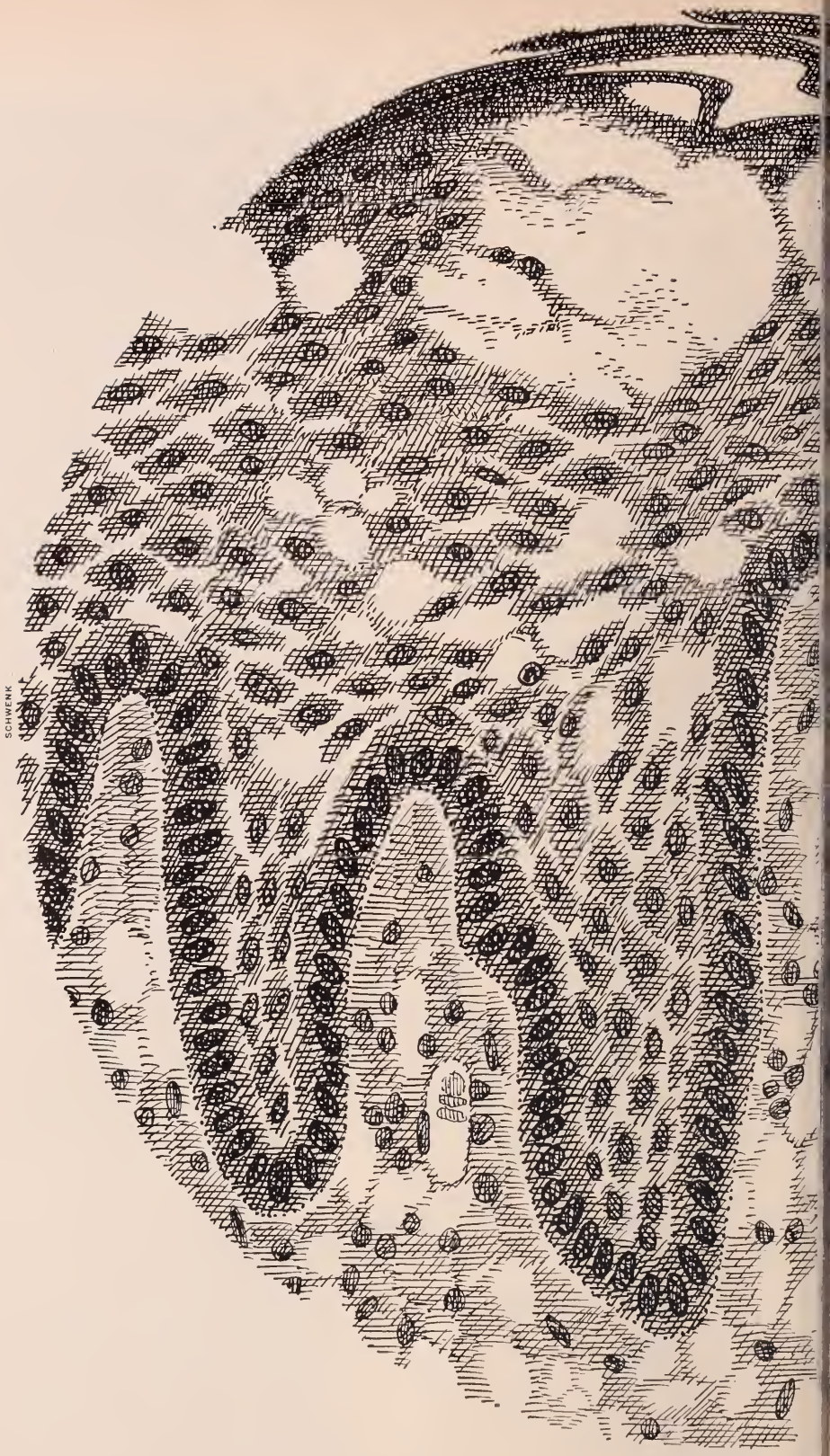
RAPID EFFECTIVE CONTROL

with an outstanding SAFETY record ...not a single reported adverse effect in over twenty years of continuous dependable service

SUPPLIED IN 10cc MULTIPLE-DOSE VIALS
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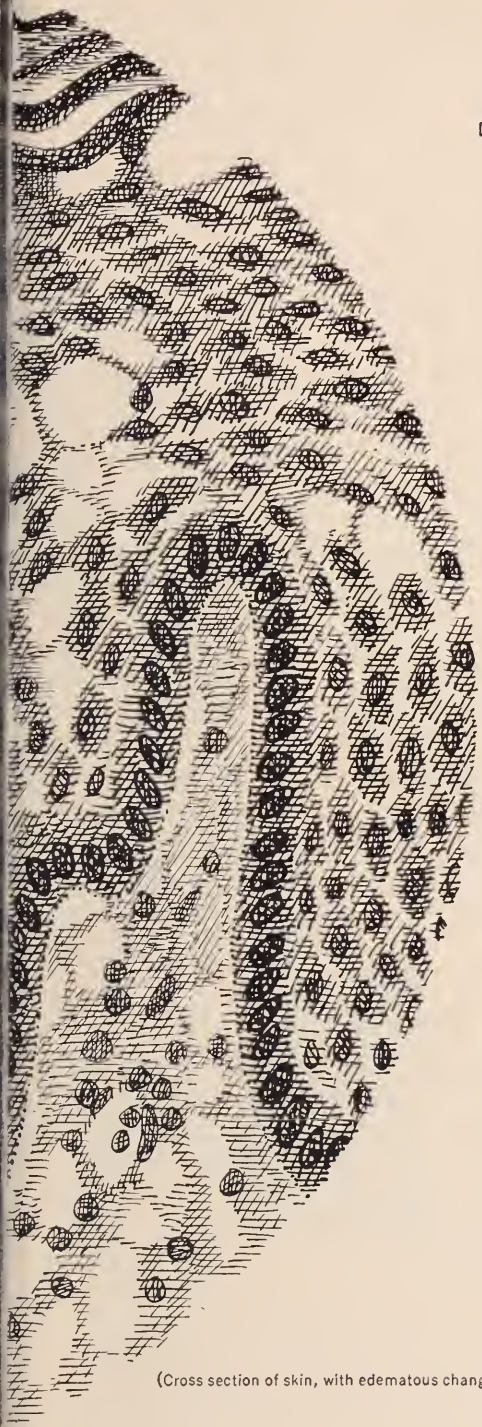
because patients are more than inflamed skin... controlling inflammatory symptoms is frequently not enough!

Even cortisone, with its severe hormonal reactions, can effectively control allergic inflammatory symptoms in dermatoses. But a patient is more than the sum of his parts – and the skin is only part of a whole patient. Symptomatic control is but one aspect of modern corticotherapy, because what is good for the symptom may also be bad for the patient.

Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy

Aristocort®

Triamcinolone Lederle



(Cross section of skin, with edematous changes including vacuolization)

ARISTOCORT is an outstanding "special purpose" steroid when the complicating problem is increased appetite and weight gain, sodium retention and edema, cardiac disease, hypertension or emotional disturbance and insomnia.

ARISTOCORT provides unsurpassed anti-inflammatory control without sodium retention or edema — without undesirable psychic stimulation and voracious appetite.

Supplied: Scored tablets (three strengths), syrup, parenteral and various topical forms. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

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BENEFICIAL RESULTS were obtained with **SARDO** in the bath in 122 of 135 patients (90%) with dry, itchy skin conditions, in most cases with beneficial effect "after the first bath." Dryness was allayed in all cases, and associated itching "either completely relieved or greatly improved." No irritation or sensitization was observed.

This new study corroborated others[2-4] showing that SARDO helps re-establish the normal physiologic lipid-aqueous skin balance.

Pleasant, easy-to-use SARDO releases millions of microfine water-dispersible globules* in the bath. Bottles of 4, 8 and 16 oz.

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SAMPLES and literature available from . . .

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1. Borota, A., and Grinell, R.N.: J. Amer. Geriatrics Soc., 10:413, 1962.
2. Spoor, H. J.: N.Y. State J.M. 58:3292, 1958.
3. Lubowe, I. I.: Western Med. 1:45, 1960.
4. Weissberg, G.: Clin. Med. 7:1161, 1960.

Carry it...

Even a petite nurse can easily pick up and carry a Sanborn Visette® electrocardiograph wherever it's needed — in the office, on house calls, in the clinic or laboratory. Not much bigger than a doctor's bag, the Visette weighs only 18 pounds — with all accessories.

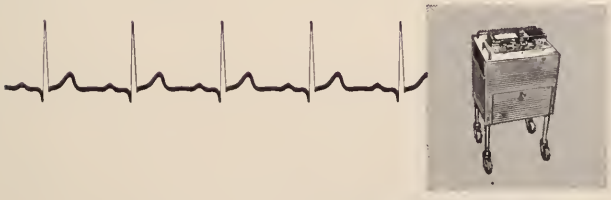
And as portable as it is, a Visette nevertheless equals any "office standard" ECG in recording quality and accuracy. Every record is sharp, clean, permanent and — as you expect from Sanborn Company — diagnostically accurate. Compactness and ruggedness for travel are achieved by the practical means of modern miniaturized circuitry, not by sacrificing accuracy.

If you prefer the greater versatility of two chart speeds, three recording sensitivities and provision for recording and monitoring other phenomena, the Model 100 Viso-Cardiette is a logical choice. And when these capabilities are needed in a mobile instrument, the mobile cabinet version (Model 100M) is designed to be easily rolled to bedsides in hospital or clinic.

Regardless of which of these three instruments you choose, each has a valuable and unique feature: Sanborn service. It lasts long after the sale . . . from people who know your ECG and value your satisfaction.



wherever you need "on-the-spot" cardiography



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When you choose an anorectic—

"Does it help the patient maintain the proper diet, is it free of dangerous side effects, and does the patient like it?"[1]

Perhaps you'll find, as Stevenson did, "['Eskatrol'] seems to meet these criteria better than most."

1. Stevenson, L.E.: M. Ann. District of Columbia *30*:409 (July) 1961.



ESKATROL®
SPANSULE®
brand of sustained release capsules

PRESCRIBING INFORMATION

Formula: Each 'Eskatrol' *Spansule* sustained release capsule contains Dexedrine® (brand of dextro amphetamine sulfate), 15 mg., and Compazine® (brand of prochlorperazine), 7.5 mg., as the dimaleate.

Recommended Dosage: One 'Eskatrol' *Spansule* capsule daily, taken in the morning.

Side Effects: Side effects (chiefly nervousness and insomnia) are infrequent, and usually mild and transitory.

Cautions: Clinical experience has demonstrated that 'Eskatrol' (containing the phenothiazine derivative, prochlorperazine) has a wide margin of safety and that there is little likelihood of blood or liver toxicity or neuromuscular reactions (extrapyramidal symptoms). The physician should be aware, however, of their possible occurrence.

'Eskatrol' *Spansule* capsules should be used with caution in the presence of severe hypertension, advanced cardiovascular disease, or extreme excitability.

Prescribing information adopted Jan. 1961

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Relieves Anxiety and Anxious Depression

The outstanding effectiveness and record of safety with which Miltown relieves anxiety and anxious depression — the type of depression in which either tension or nervousness or insomnia is a prominent symptom — has been clinically authenticated time and again during the past seven years. This, undoubtedly, is one reason why physicians still prescribe meprobamate more often than any other tranquilizer in the world.

Miltown®
meprobamate (Wallace)

Usual dosage: One or two 400 mg. tablets t.i.d.
Supplied: 400 mg. scored tablets, 200 mg. sugar-coated tablets; bottles of 50. Also as MEPROTABS® – 400 mg. unmarked, coated tablets; and in sustained-release capsules as MEPROSPAN®-400 and MEPROSPAN®-200 (containing respectively 400 mg. and 200 mg. meprobamate).

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Clinically proven in over 750 published studies

1 Acts dependably – without causing ataxia or altering sexual function

2 Does not produce Parkinson-like symptoms or liver damage

3 Does not muddle the mind or impair physical activity



The good life–just what the doctor ordered

Sea and sun are both in his doctor's orders — so is that grapefruit he's eating with such gusto. Citrus fruit is a wonderful way for this patient or any patient to get his daily quota of vitamin C . . . to enjoy something good to eat, tasty and satisfying but not rich.

Not all patients are so lucky as to have retired to Florida, where they can pick citrus fruit off their own trees. But any patient anywhere can get the same benefits of the natural vitamin C in Florida oranges, grapefruit, and tangerines . . . thanks to modern methods of processing fresh fruit. Whether it is frozen, canned, or in cartons, 98% of the vitamin C content of the fruit is preserved.

Grapefruit and other citrus fruits filled with vitamin C are valuable in the nutrition of every age group. Among the teen-agers, vitamin C is one of the two nutrients most often low in the diet. Infants, too, need generous amounts of vitamin C; and they will take it readily when it comes to them in the form of delicious orange juice.

When your patient chooses *Florida* citrus, he can be sure of getting fruit filled with natural goodness and of just the right sweetness. Florida citrus is unexcelled because a State commission watches over the entire Florida citrus crop to see that it meets the world's highest standards for fresh, frozen, canned, or cartoned citrus fruit.

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scratching helps...



but Calmitol stops itching fast!

For every kind of pruritus—for adults or children—safe, fast-acting CALMITOL Ointment soothes itching on contact, helps prevent secondary trauma caused by scratching. And low-cost, conservative CALMITOL is non-sensitizing. CALMITOL Ointment is available at all pharmacies in 1½ oz. tubes and 1 lb. jars. For more stubborn pruritus, CALMITOL Liquid in bottles of two fluidounces.
THOS. LEEMING & CO., INC., New York 17

CALMITOL®

for anything that itches

...WITH 'METHEDRINE' SHE CAN HAPPILY REFUSE!



Controls food craving, keeps the reducer happy — In obesity, "our drug of choice has been methedrine . . . because it produces the same central effect with about one-half the dose required with plain amphetamine, because the effect is more prolonged, and because undesirable peripheral effects are significantly minimized or entirely absent." Douglas, H. S.: West.J.Surg. 59:238 (May) 1951.

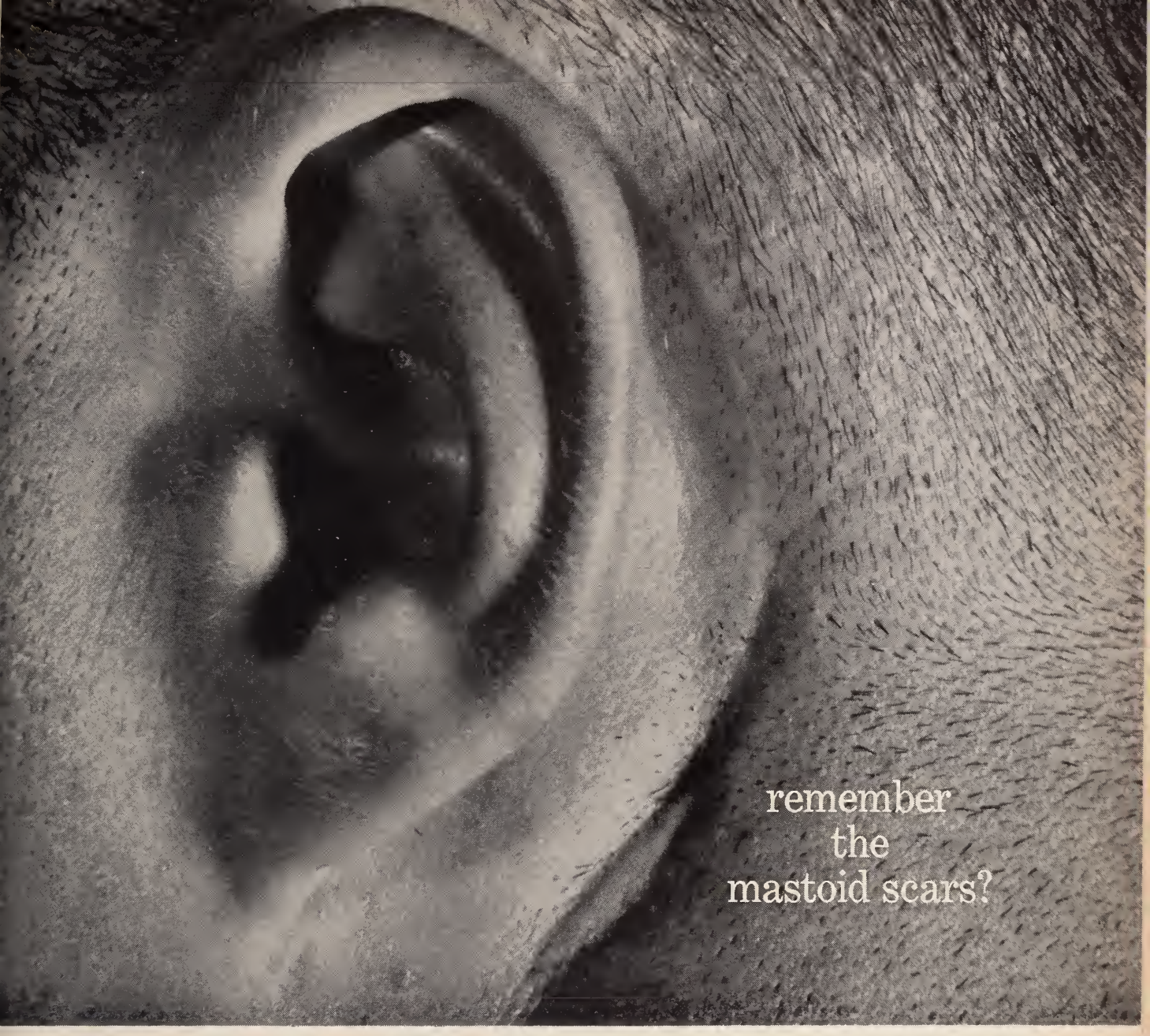
'METHEDRINE'®

brand Methamphetamine Hydrochloride

Supplied: Tablets 5 mg., scored. Bottles of 100 and 1000.

Literature available on request.

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And even these were the fortunate ones, despite the fact that they were to carry a disfigurement for life. Many died. Particularly if meningitis had set in before surgery . . .

You see very few mastoid scars around today – and, under 20 years of age, they are almost nonexistent.

But, not so many years ago (1934) it was a different story:

*"No case of acute mastoiditis should be accepted for insurance unless the ear has healed up after operation and has remained so for at least six months."**

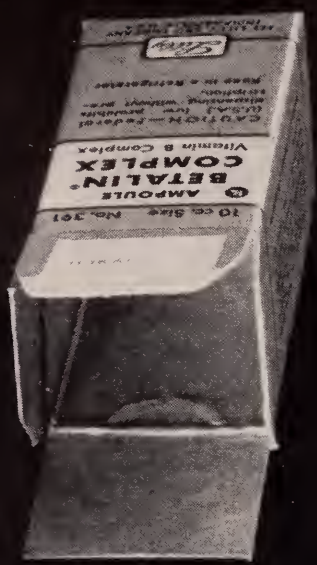
From insurance risk to a practically unknown entity in medicine is quite a record for the relatively few intervening years between then and now. The reasons are not hard to come by. Diagnostic techniques have improved enormously, as has the quality of medical education. And, we submit, so has the quality of the medicines which have become available.

Yet, the value of independent drug research has been seriously challenged – research which has produced the chemotherapeutic compounds which make the *cure* of mastoiditis practically a routine, not even a worrisome, procedure. True, the cost may run as high as $15.00. Yet, ask the man who paid $1,000.00 for his mastoid scar which he would have preferred – if he had had the choice.

*Asherson, N., "Acute Otitis and Mastoiditis in General Practice," H. K. Lewis & Co., Ltd., London, 1934.

This message is brought to you on behalf of the producers of prescription products. A display card of this ad for your waiting room is available. Write:

PHARMACEUTICAL MANUFACTURERS ASSOCIATION • 1411 K STREET, N.W. • WASHINGTON, D.C.



the case of the missing ampoule

People aren't perfect—neither are machines. Both can slip up occasionally. Take an ampoule in a paper carton for example. How can we be absolutely sure that the ampoule is really inside? ■ Here's how: A machine folds the carton, inserts the ampoule, seals the carton, and then places it on the finishing line. Further down the line, the detective waits—a jet of air sweeping across the finishing line just strong enough to blow an empty carton off the belt. Properly filled cartons proceed for further inspection and packaging. ■ Perhaps a small point, but it is another in a long series of control measures designed to deliver quality pharmaceuticals every time.

Eli Lilly and Company • Indianapolis 6, Indiana, U.S.A.

Lilly

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A Year-End Announcement From the Editor



A New

ILLINOIS MEDICAL JOURNAL IN 1963

Your New Role in its Success

Beginning January, 1963, the Journal introduces a new publishing policy to give you an improved State Society publication. Among the changes is the front cover. Replacing the state map and blue color will be a large monogram "IMJ" and different colors used rotationally for better issue identification.

Inside, there will be more clinical material written by national and local medical authorities; more socio-economic items of interest to you as a practitioner and citizen; new, timely features to break the steady pace of clinical reading; and more complete coverage of Society and local news.

The Pulse and a legislative news letter which formerly were mailed to you separately will appear as inserts in the new Journal. Pulse mailings to the Woman's Auxiliary will be continued so that Auxiliary members will not have to rely on the Journal mailed to their husbands each month for news of Auxiliary activities. These innovations not only will provide an economic advantage but will enable you to refer to one, convenient

source for virtually all news of the Society.

In addition, general, non-medical advertising consistent with the high publishing principles of the Journal will be accepted for the first time.

It is important to emphasize that none of the announced changes is being made merely for the sake of change. Each one was carefully planned within a framework of modern publishing principles to achieve a Journal attracting the highest possible readership among Society members. Despite the many changes, features you have read regularly in the past will remain, including the Reference Page, Medicine In The Out-Of-Doors, and the Clinical-Surgical Conferences.

An important consideration in planning this new Journal is the decline in advertising revenue experienced over the past two years. This problem, experienced by most medical publications throughout the country, is due largely to 1) fewer new pharmaceuticals, and 2) inroads of government control over the pharmaceutical industry. State journals generally have suffered more in revenue setbacks because limited circulation makes them a less attractive market medium for the national advertiser.

The sweeping improvements slated for 1963 will significantly strengthen IMJ's bid for the advertiser's dollar. We have the essential ingredients to make these changes — a professional Journal staff, and Chicago, a leading medical center with limitless sources for medical information.

There remains one ingredient without which the new Journal can not succeed; that ingredient is *you*. The new IMJ publishing policy requires vigorous participation and support by every member of the Society. Specifically, we ask you to:

1. Fill in and promptly return a readership survey form which will be mailed to you early in 1963. The precise data required by the Journal for marketing research can be obtained only with your cooperation.
2. Think of IMJ first when you have clinical articles, briefs, or features to consider for publication.
3. Encourage your colleagues to publish their clinical papers in IMJ.
4. Above all, read the Journal regularly, thoroughly and critically. If there are things in it you like, tell us; if there are things in it you do not like, tell us that too.

The Journal is the official spokesman for the entire Society; hence it is the sacred trust of every member.

T. R. Van Dellen, M.D., Editor
Illinois Medical Journal

The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

Volume 122, No. 6 December, 1962

An Obstetrical Comment on References to Christmas

Rev. Francis L. Filas, S.J., *Chicago*



The *Illinois Medical Journal* has asked me as a Roman Catholic theologian to set down a sort of orientation for members of the medical profession regarding the religious doctrine of the "virgin birth," since it comes into discussion especially at the time of Christmas.

This is no partisan pleading for a cause. Instead, it is intended as an objective description for *Journal* readers of all faiths or of no religious affiliation. The possible values of this orientation are many: 1) the avoidance of embarrassment for or from doctor or patient; 2) a more positive and correct opinion instead of cynicism based on the equivalent of old-wife-tale caricatures or religious doctrine; 3) and perhaps most of all, the general liberalizing influence of information otherwise unavailable, practically speaking, for the specialist, from a field other than his or her own.

Naturally, I can speak only for Roman Catholic thought. Much, perhaps all of what I will say, is also held by those of the Orthodox faith. Many Protestant groups accept more or less of these ideas. The whole state of the question is based on a fundamental assumption in the Jew-

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ish scriptures, beginning with the primeval accounts of Genesis, namely, the religious dogma that everything made by God the Creator is inherently good, and that matter and the human body and sex are not evil in themselves.

The Christian interpretation of Christmas is that almost two thousand years ago, a Jewish maiden named Mary, who was already linked in a valid marriage to a carpenter named Joseph, gave birth to Jesus Christ, the expected "Messiah" or "Anointed One" or spiritual redeemer, who was God taking human nature; and Jesus had been conceived in Mary's womb without the seed of her husband Joseph or of any other man.

What terms are met within these frames of reference? First of all, the term "immaculate conception" does *not* refer to the conception of Jesus in the womb of Mary. Only too often, the "immaculate conception" has been erroneously understood as an "active" conception in Mary, as it were "immaculate" because of a freedom from male sexual fecundation of the ovum. The correct meaning refers to the "passive" conception of Mary within the womb of her mother, after the normal generative act of her parents.

At the first moment of her existence, according to this belief, the person who was Mary began to share in that life of God which God grants to those who are united to him by love — in other words, a *super*-natural life because *above* the *natural* life of a human being. This supernatural life's sharing is called in technical theological language "sanctifying grace." Its absence (in this context) is called "original sin," not because it was the "original" in the sense of the first sin, but because of the doctrine that the first man at the time of the *origins* of the human race lost a supernatural inheritance of God's life, which was otherwise destined to be handed on to all human beings. The religious doctrine of the "immaculate conception" holds that Mary alone of all human beings received this privilege of sharing in God's life at once (and not later in life, as, for example, at baptism or by some equivalent means); and this was in view of the merits of the divine son Jesus whom she would later bear, and as a means of sanctifying her for so exalted a relationship as to be the mother of Jesus.

The term "virgin birth" does, however, apply to the Christmas story. In ordinary usage, "virgin birth" is taken to mean the belief that Jesus Christ began to live in the womb of Mary without the seed of a human father. May I interject at this point an extremely important comment on the ultimate theological reasons given for Mary's virginity. The doctor of medicine who so regularly deals with the workings of the human body can certainly be excused for being impatient with the puritanical outlook that looks on the human body as filthy or sex as of its nature impure and foul. The school of theological thought which I represent, thoroughly rejects this puritanism just as vigorously as does the doctor of medicine. It hastens to add that the virginity of Mary in the birth of Christ is not to be traced to a horrible nature of sex, as if the natural mode of reproduction were something so disgusting that God disdained to use it for that reason when he took on himself human nature in the person of Jesus Christ. This would imply an inherent contradiction in the work of the Creator, as if his own creation were sinful and evil.

Instead, the theological reason for Mary's virginity is to be sought in the fundamental Christian doctrine of the Trinity, namely, that according to the internal "nature" of God, Three Persons or "whonesses" exist in God: Father, Son, and Holy Spirit. In this dogma, God the Father spiritually "generates" God the Son from all eternity. Since it is God the Son who joins to himself the nature of man, as Jesus Christ, this "natural" father of Jesus is already God the Father. This natural fatherhood of Jesus is not shared with Joseph, Mary's husband. Joseph is truly husband of Mary because he is linked with her in the marriage contract of mutual, exclusive, and complete belonging; but he and Mary do not make use of their physical marriage rights because of Mary's position as mother of Jesus, of which she and Joseph have been made divinely aware. Joseph acts as father of Jesus with all other paternal relationships except that of physical generation.

Practically all groups of Christians, calling themselves by that name, will accept the "virgin birth" in this sense. From earliest Christian times, this was called the virginity of Mary

ante partum — "before the birth of Christ." It is considered as clearly taught in the gospels of Matthew and Luke.

However, this unanimity does not exist among Christians about two other aspects of Mary's claimed virginity: *in partu,* and *post partum.* The *post partum* virginity of Mary would refer to a belief that she had no children other than Jesus. Those who hold Mary's virginity *post partum* take the gospel references to the "brethren of the Lord" to mean not blood, uterine brothers of Jesus, but cousins or other more distant relatives. Again in this doctrine, no ridicule or disdain for sexual reproduction is implied. The ultimate reason would be that the body of Mary would be reserved to give human nature alone to God.

Medically speaking, the greatest ignorance and misunderstanding exists concerning the doctrine of Mary's virginity *in partu.* From earliest Christian times, this phrase is found in theological writings; and in church decrees it is repeated again and again. To avoid further clouding an already confused issue, let us set down a series of concise statements:

1) The church doctrine on Mary's virginity *in partu* (meaning "in the birth" of Jesus Christ) has never been officially explained in a detailed manner, requiring faithful adherence specifically to what it means in any detail of the birth of Jesus.

2) The minimum meaning it bears is that Mary retains her virginity while giving birth to Jesus Christ — whatever that "virginity" means.

3) In 1960 the Congregation of the Holy Office (an extremely authoritative commission of the Roman Catholic Church) forbade Catholic theologians to discuss this matter with indelicacy, and also prohibited them from giving an interpretation that would make the birth of Jesus from Mary non-miraculous.

4) Many doctors by hearsay have been given the impression that Mary's virginity *in partu* necessarily means that her hymen remained intact. This has been at best a theory of certain theologians; and it was in this area that the church cautioned on the need for delicacy in popular articles.

5) As early as the 17th century, theologians were aware that the hymen might remain intact occasionally even after intercourse, or that in some cases it did not exist. Hence, they emphasized the necessity of refraining from categorizing on the nature of Mary's "virginity" in giving birth to Jesus.

6) Building on the concepts of minimum requirements for biological virginity, as suggested in 1956 by a Viennese, Dr. A. Mitterer, some theologians have suggested that the Christian concept of Mary's virginity in bringing forth Christ might refer to a *symbolization* of Mary's relationship to God as remaining "absolutely intact, absolutely whole, absolutely integral." Thus, in Mary, the apparently contradictory realities of virginity and motherhood would not be contradictory but would be concretized.

7) The theologian returns to the theme of the goodness of God's creation, and again emphasizes that the virginity of Mary and her motherhood of Jesus are in no wise to be considered repugnant to the deepest respect for the body and for sexual reproduction. The essential factor to note here is not a physical condition, so much as a spiritual adherence on the part of Mary to the will of God as she understood God wished her to carry it out according to his eternal plans for the human race and for the coming on earth of Jesus Christ as "the Prince of Peace."

"MY BEST OF WISHES for your merry Christmases and your happy New Years, your long lives and your true prosperities. Worth twenty pound good if they are delivered as I send them. Remember! Here's a final prescription added, 'To be taken for life.'" *Doctor Marigold's dissertation in Charles Dickens' "A Christmas Tree."*

A Hanukkah Message



Religion and Medicine

Rabbi I. M. Melamed, *Chicago*

Both Religion and Medicine have many goals and objectives in common. There is no room for enmity or conflict between them. Both are dedicated to the service of men; the body of man, the soul or spirit of man.

It's idle to speculate whether the one or the other should have priority or preference in our scale of values. Both are in many manifestations inextricably involved in one another; they are in many situations the two sides of the same coin — or person.

Particularly so in the Hebraic tradition, the physician of the soul and the healer of the body were frequently found to lodge in the same individual. Some of the greatest philosophers and scholars in Judaism were at the same time renowned medical men. Even as we accept today the validity of psychosomatic medicine so we should, I believe, think at times in terms of psychoreligious medicine.

Both physician and clergyman are frequently involved in the total problem or need of the patient. The physician as the clergyman is but an agent of the Almighty dedicated to the belief that man, fashioned in the image of God, is not only worth saving from pain or destruction but also that by rescuing but a single individual from the pit of annihilation one has indeed become a co-partner with the Almighty himself in the task of creation itself.

It is obvious that both physician and clergyman — medicine and religion — must love and respect life, and this seemingly obvious fact needs repetition and emphasis today in a social milieu where the very opposite is frequently the order of the day.

Forlornness and despair are evident in many strata of our society. The fear of tomorrow is constant. The dread of utter destruction is part of many a man's fare. Atom bomb fear in its varied forms and manifestations, both personal and social, is frequently part of the very air we breathe, the diet we consume.

In this state of fear and despair in which so many individuals find themselves, there may eventually evolve a philosophy of social destruction of hate, prejudice, the will even to die; and it's in this field, at this time, that the partnership of medicine and religion can func-

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tion most effectively. Both, each following his own technique, infuse a will to live, a sense of optimism. Both say yes to life; both envision a brighter tomorrow where the atom will bless and bring healing instead of dread and destruction.

The physician may object to the designation as a man of faith. He may even call himself a convinced agnostic, or simply a technician, a scientist. The name is less important than the end result. Each one digs deep in the Lord's vineyard for sustenance and help. Each one takes his own road to reach the goal. And strangely enough — is it strange — both meet sooner or later at the bedside of the patient.

The patient is frequently beset by a host of fears and anxieties. He suffers from loneliness and insecurity. He may begin to experience a sense of inadequacy and guilt. In his extreme helplessness he may moan with Job:

> "Let the day perish before I was born and the night in which it was said there is a man child conceived."

Or the patient may actually seek self-destruction by refusing to cooperate with those who may want to help him. Frequently, and more obviously, he may indulge in self-pity. In his sleepless nights — despite the pills, he may say with Aeschylus (The Persians):

> "Ah me, how sudden have the storms of Fate — beyond all thought all comprehension burst on my devoted head."

And here is where the confrontation between medicine and religion may be most beneficial and effective. In this state of helplessness, in which both the physician and clergyman find the patient, a state described by Dr. Flanders Dunbar, as:

"It is the very nature of illness that it impels the individual back toward his childhood and even beyond. He wants to be taken care of to have the burden of decisions taken from his shoulders, to be protected and cherished and disciplined." A great deal may be accomplished in restoring to him a sense of values and self-reliance.

To the clergyman the patient may unburden his fears and frustrations, open his soul, so to speak. The clergyman, to the patient who believes, represents eternity and security; the clergyman represents eternal faith and will to live. Furthermore: Eternal conquest. Peace may come to the patient, through the clergyman's visit where there was but conflict before, acceptance may result; where there was nothing but rejection, a spark of memory may be rekindled which cast its glow over the entire hospital ward.

Religion and medicine are destined to live, work and walk together to fulfill their destiny and sense of dedication; to help man in all areas, in all ways, in all fields, in all situations.

The Partnership

As the body and soul are united in a living being, so must the physician be able to treat both. Proof of this is the placebo which so often cures because it is preceded by sympathy and given with kindness. When the physician begins his practice, his medical skills enter into an equal partnership with human understanding and a sense of the religious. This partnership cannot dissolve until he terminates his practice.

—Anonymous

Rehabilitation of the Hemiplegic Patient

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Whereas the Term "Rehabilitation" is usually considered as the proeess whereby a patient is restored to maximum eeonomie and soeial function within the limits of his disability, the hemiplegie vietim presents a somewhat different problem. Here, cerebral functon is impaired and although at times the physical disability may not be great, cerebral dysfunetion often beeomes the outstanding limiting factor. The patient exhibits pereeptual difficulties and poor comprehension, and sinee his learning ability is limited, he is unable to follow instruetions. He may also display erratic behavior and faulty judgment. Thus it is felt that restoration of the hemiplegie patient to a competitive employment market is not feasible in many eases. In these instanees therefore, the term "rehabilitation" must be aeeepted as the restoration of function to the maximum degree of independent living within the eommunity, with careful emphasis on evaluation of the patient's ability to be self-sufficient in the field of eompetitive employment. Very often it will be seen that the stresses and strains of employment may exacerbate the disturbance in cerebral funetion and any existing aphasia.

When the patient sustains his eerebrovaseular accident, the physician's immediate concern is the treatment of shock or coma and the saving of the patient's life. At this point, attention is focused on the vital signs, respiratory depression and coexistent complicating medical faetors; little heed is paid to the avoidance of contractures or the possibility of voluntary funetional return. In the acute phase therefore, the patient entering the rehabilitation process does so with a greater handicap than that eaused by the initial trauma.

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In deseribing the rehabilitation process of the hemiplegic patient, we usually think of it in terms of the acute and the rehabilitative phases. During the acute phase, as is briefly outlined above, the physieian is preoeeupied with the survival of his patient. If the physician could look ahead to the rehabilitation process whieh would follow, the patient could gain great benefit from eorreet positioning, special nursing eare, and the institution of a physical therapy program eonsisting of passive range of motion exercises whieh would eliminate the development of contraetures. This proeess does not entail any physieal effort on the part of the patient, as the exereises are passive, and controlled by the physical therapist. If the few simple suggestions mentioned are carried out, the way is paved for a much quieker, and more rewarding rehabilitation program. It should also be pointed out that during the acute phase when the patient is confined to bed, museular weakness through disuse takes plaee. Very often, the patient admitted to an active rehabilitation program is found to have not only paralysis on one side of his body, but marked weakness of the unaffeeted arm and leg due to disuse of these limbs.

Once the patient's eondition has been stabilized, his physical state permitting, he is now ready to enter into the active rehabilitation phase. This statement should be qualified by the fact that the older patient may require an additional period of several weeks for reintegration. During this period he needs time to reorganize his personality, overcome depression, and realize that he has lost the functional use of one side of his body. In some instances, the patient's entry into the rehabilitation program is somewhat premature. He is still eonfused and disoriented as to time, place and person. He is unable to meet the rigors and demands of an aetive program. Sometimes the mental condi-

tion may degenerate and he may show evidence of depression after his exposure to the busy pace, the faces of the various therapists and personnel, and the trying experience of concentrated muscle re-education and strengthening. However, in most instances, the patient who is ready for his rehabilitation program adapts quickly to it as he watches the efforts and progress of his fellow patients. In time, he comes to meet the challenging aspects of relearning, coordination, activities of daily living, and ambulation with hope and enthusiasm.

Immediately on admission to the Rehabilitation Institute, the patient is evaluated by the physiatrist who outlines a program designed to improve the ranges of motion in the affected joints and institutes a program of muscle re-education and strengthening exercises, in accordance with the patient's physical and medical conditions. The patient is then thoroughly examined by the internist who establishes a medical regimen and grades the patient's physical activity tolerance. If the coexistent problems in the urologic or neurologic fields are present, they are evaluated by the consultant urologist, or jointly by the consultant neurologist and neurosurgeon.

Medicine is practiced as a group approach at the Rehabilitation Institute. All the specialties of medicine are represented and invariably the patient is exposed to many of them. This type of group approach is uniquely comprehensive and greatly facilitated by a full-time medical staff and attending staff who have considerable patient contact. After the patient's first day, he is slowly exposed to a program which consists of various stages of rehabilitation. The first stage that the hemiplegic victim experiences is that of preparation for motion. In this stage one of the key personnel involved is the nurse. This branch of nursing is a highly specialized one and requires considerable training. It is the nurse's responsibility to see that the patient is properly positioned and that pressure areas receive adequate care, thus preventing the occurrence of decubiti or joint deformities. She is instrumental in acclimating the patient to the upright position and stimulating independence in all activities of daily living. She insures that improvements are maintained as the patient progresses in independent care by being in constant communication with the various therapy departments.

As the patient gradually becomes mobilized, he enters into the second stage of rehabilitation known as specific exercises and therapeutic program. At this point, the key personnel are the physical and occupational therapists. They carry out the physiatrist's orders and supervise a program designed to improve the muscle power in the existing voluntary musculature and practice muscle re-education on those muscles that can be elicited through various facilitation techniques. The therapists may be called on to alter their method of communication from auditory stimuli to visual cues when dealing with the patient who has sustained severe brain damage. In some instances, visual stimuli may reinforce auditory stimuli and vice versa, all helping the patient's adjustment to his therapeutic program. The occupational therapist may use such various equipment as printing presses, looms, bicycle saws, and micro-gyms, the end result being satisfactory muscle strengthening, coordination, and improvements in motion range.

Having reached the point where the muscle strength has improved, the patient enters the third stage of the rehabilitation process called the functional program. During this stage, emphasis is placed on converting upgraded muscles to functional use. Here the patient is upgraded in the activities of daily living and ambulation. When he has gained sufficient balance and his quadriceps are sufficiently strong, he may ambulate with the assurance that his paralyzed limb will support the weight of his body. The work of the physical and occupational therapists continues, and it is at this stage that the vocational rehabilitation counselor can formulate a practical vocational goal, taking into account the patient's real abilities. At this time it is determined whether the patient displays sound judgment in ambulation, and is functionally adept in climbing bus steps, thus being able to use public transportation.

Other members of the rehabilitation team have been playing an important role throughout the patient's rehabilitation process. The social worker has made initial contact with the patient, and has contributed to discharge plans through a deep insight to the patient's cultural and environmental backgrounds. The psychologist has been active throughout the patient's hospitalization also. He aids the patient in adjusting to the rehabilitation program and supports him

psychotherapeutically through the emoitonal stresses associated with the patient's loss of self-image. The role of the psychologist is an extremely important one in evaluating the extent of cerebral damage. He investigates the perceptual difficulties associated with the extent of cerebral dysfunction. The psychologist constantly communicates his findings to the other members of the staff and aids in determining works closely with the social worker and the the patient's acceptance of his disability. He vocational counselor in crystallizing a discharge goal.

Many hemiplegics have the problem of aphasia with resultant problems of communication. The speech therapist plays a very active role with the patient on his admission through discharge. The speech therapist evaluates the patient and institutes therapy when indicated. In many hemiplegics in which the dominant side is involved, the speech therapist works closely with the occupational therapist when the dominance is to be changed. If the patient has a right sided hemiplegia and is right-handed, he is now made to write and utilize his left hand. Although the occupational therapist is fundamental in re-training the patient, it is the speech therapist who will often be called upon to help give greater insight into the problems of changing dominance.

When the patient has reached a maximum in his functional activities program, he enters the fourth stage of rehabilitation, which is discharge to the community. It is here that the social worker, vocational counselor, and psychologist will perhaps play one of their most important roles in helping the patient adjust to community living. It must be emphasized that throughout the patient's rehabilitation process there is close intercommunication among the departments. All patients are discussed at joint conferences which are attended by all the medical and paramedical personnel. The rehabilitation program is a flexible one characterized by activity and change. The program is an extremely integrated and highly intricate mechanism. One of the most vital factors of the rehabilitation program is a highly developed system of communications. All of the personnel are in close contact with the patients, and the offices of the various personnel are easily accessible to the patients. The patients are frequently observed during their therapy sessions. This lends itself to a comprehensive program and treats the patient and his needs.

Once the patient has returned to independent living in the community and possibly to gainful employment, he is seen periodically for recheck examinations in the Out-patient Department. It is here that we have the opportunity of observing the patient during his return to community living. A home program of exercises, ranges of motion and ambulation is established. It is hoped once the patient has finished his rehabilitation program and has been sufficiently indoctrinated in an exercise program that a habit pattern is made. Once the habit pattern is well established it is hoped that the patient will not show signs of regression. Referrals which have been made for possible re-training in manual or educational skills are checked out during the outpatient visits.

The continuity of the referring physician-patient relationship has not been challenged and it is strongly recommended that the patient refer all problems regarding his medical status on discharge back to his private physician. The referring physician has been sent progress notes throughout the patient's stay at the Rehabilitation Institute and on discharge, a comprehensive summary of hospitalization with recommendations is forwarded to him. The referring physician is encouraged to participate in the rehabilitation program planning for the patient — in conference, re-evaluations, and finally in discharge plans. The referring physician has courtesy privileges which allow him access to the patient's chart and communication with any member of the staff.

Special Problems in the Rehabilitation of a Hemiplegic Patient

Special problems in the rehabilitation of a hemiplegic patient have been alluded to previously. One of the major problems we face with hemiplegic patients is the coexistence of cardiovascular disease. Many patients have had hypertension of many years duration and consequently have cardiac involvement. These patients present a special problem and the services of the internist are required in helping to formulate a graded program of physical activity. The inpatients invariably complain of

easy fatigue, dyspnea, and bilateral swelling of the lower extremities. The bilateral swellings should be differentiated from the edema that invariably occurs in the affected or paralyzed leg. The cardiac hemiplegic is of course treated with anticongestive medications as required. The unilateral swelling that so frequently occurs in the hemiplegic patient is felt to be caused by disturbances in vascular tone, and particularly from loss of muscle tone with subsequent venous stasis. The problem of unilateral swelling is coped with by elevation of the lower extremity, diuretics and centripetal massage. If the swelling is persistent, firm elastic stocking supports are used and found to be very effective. The avoidance of heat to the extremity helps to prevent aggravation of the edematous condition.

Another problem which invariably occurs is one of orthostatic hypotension. The hemiplegic who has recuperated from his cerebrovascular accident has lain in bed for several weeks and has alterations of vascular tone and invariably on assuming the upright position, he will complain of lightheadedness, dizziness, and even fainting. Acclimation to the upright position is achieved by the use of the tilt table. By acclimating himself to the upright position for longer periods of time each day, the patient will adapt himself remarkably well once standing and ambulation are attempted at a later date. In many instances, hypotension can be combated with elastic bandage wrappings to the legs and the use of an abdominal binder.

Following a cerebrovascular accident, many patients frequently complain of severe pain involving the affected shoulder, arm and hand. This is akin to the shoulder-hand syndrome following an acute myocardial infarction. We have found this type of syndrome to occur most frequently with those patients who have not had range of motion exercises to the affected upper extremity soon after their cerebrovascular accident. The pain of the shoulder-hand syndrome is most effectively treated with heat to the affected extremity, followed by passive and active range of motion exercises. In a vigorous program of this nature, the pain will gradually subside. Ultrasound has been used to the paravertebral cervical area of the affected shoulder with good success. In this instance, it seems to act effectively as a pain relieving agent. Very often patients are put on high doses of salicylate and other analgesic therapy just preceding their exercises. This enables them to tolerate the activity far better and it is easier to achieve full range of motion quickly. In some hemiplegics, there are complaints of pain referable not only to the upper extremity, but the entire affected side. This type of pain appears to be on a central nervous system basis, in some instances comparable to the phantom limb pain of amputees. In some cases, Diphenyl-hydantoin appears to be effective. Tranquilizers and psychotherapeutic measures are effective in those patients who have considerable emotional overlay with their physical disability.

In many of the hemiplegics, there is a problem of visual field loss. Bilateral homonymous hemianopsia occurs, and with relatively simple instructions, particularly in the process of scanning, the patient can learn to compensate for this defect. The patients with visual difficulties are seen and evaluated by the ophthalmologist, and if there is a question of loss of visual acuity, glasses are prescribed. Bifocals are to be avoided, and it is advised that two separate sets of glasses be obtained. When the hemiplegic ambulates and wears bifocals, the quick adaptation required for near and distant vision very often provokes insecurity, and may offset the hemiplegic's balance. Visual agnosia, if it occurs, very often presents a severe problem in dressing activities, particularly in the left hemiplegic.

Bladder and bowel disturbances in the hemiplegic patient present little if any difficulties during the rehabilitation program. Usually three to six weeks post-cerebrovascular accident, the hemiplegic's bladder can resume normal function and the indwelling catheter can be removed.

One of the most frequent problems encountered in the rehabilitation of a hemiplegic is the problem of subluxation of the affected shoulder. It occurs with more regularity in the flaccid hemiplegic, but will also occur with the less spastic hemiplegics. Here, the patient may complain of a dull ache in the area of the shoulder and this type of pain is to be differentiated from the shoulder-hand syndrome and neurogenic pain previously mentioned. The latter's complaints are much more severe and are usually aggravated by motion. The partial or complete subluxation can be adequately controlled with the use of an arm sling. In con-

sidering splinting of the affected hand, consideration should be given to positioning of the fingers and hand in the position of optimal function. The finger flexors are very often tight and may be contracted, in which case a platform splint which allows for some flexion of the wrist is indicated. Gradually the wrist portion of the splint can be molded to 180 degrees, as the contracture yields to pressure. One of the most important considerations is that the thumb should be in a position of abduction, and the web space well stretched with a "C" bar. Durafoam plastic splints molded with a minimum of cost to the patient can provide an ideal device for the prevention of contractures and the maintenance of a reasonably good cosmetic hand. If no function exists in the affected hand, it should be emphasized that the platform type splint is unnecessary when the patient has the ability to learn to stretch his own fingers and wrist, and it is certainly contraindicated when there is active voluntary movement in the affected hand.

Very often, the question arises as to when voluntary return is to be expected in the affected upper extremity. In our experience with hemiplegics, we have found it safe to assume that if there has been no voluntary return in a period of six to twelve weeks following their cerebrovascular accident, then little voluntary return is to be expected. Very often the hemiplegic with a spastic upper extremity is capable of only gross voluntary movement, in which case the arm can be utilized merely as an assistive device to aid in stabilizing objects, and little more. Many hemiplegics will not accept the loss of their dominant hand, and are not amenable to an intensive program designed to change the dominance to the unaffected side. These patients require considerable emotional support before such a program can be adopted. If the hemiplegic has voluntary motor power in the affected hand, but lacks adequate sensation, it is very often impossible to re-train this patient in highly complicated tasks such as handwriting and other manipulative functions. In many of these cases, compensation for the lack of sensation can be made by visual clues. Thus, with the eye-hand coordination, the patient can function with the affected hand which lacks sensation.

Bracing of the lower extremity very often entails a prescription for a short leg brace. We have found that the spring assist Klenzak type brace in the spastic hemiplegic provokes and aggravates spastically and is contraindicated in many instances. Rather, a simple round caliper type brace, which utilizes a 90 degree posterior stop is indicated. A short leg brace provides ankle stability not only in the anteroposterior plane of motion to prevent foot drop, but also laterally to compensate for a valgus or varus deformity. The hemiplegic leg in many instances has paralysis of the hamstring muscles. The patient establishes a gait whereby he tends to lock and hyperextend at the knee during the weight bearing phase of ambulation. In some instances, the recurvatum at the knee which will occur can be prevented by adjusting the 90 degree posterior stop to a more acute angle, such as 85 degrees. This keeps the knee constantly flexed and prevents recurvatum. During the initial gait training program, the use of an artificial hamstring muscle attachment has been found to be extremely helpful. This consists essentially of a pelvic belt and an elastic strap which stretches over the buttock below the knee joint to attach to the calf band of the short leg brace.

The hamstring muscle provides a power source for knee flexion during the swing-through phase of ambulation. This also helps the patient in establishing a near normal gait pattern, and aids him in clearing objects such as curbs and steps. When an adequate gait pattern has been established, the patient very often can discard the hamstring muscle attachment. In some instances, where there are no voluntary quadriceps, the patient may require a long leg brace. As the patient progresses in his ambulation, the locking device at the knee can be unlatched to test and encourage knee stability. Once there is adequate proof of the patient's being able to ambulate with the knee unlocked, the long leg brace can be modified to a short leg brace.

One of the greatest factors influencing the patient's progress through his rehabilitation program is the question of brain-damage. Brain-damaged hemiplegics will vary from the minimally involved patient who exhibits slight difficulty in learning and recall, to those who display very erratic behavior characterized by disintegration of personality and no evidence

of judgment. Very often emotional factors, such as depression and withdrawal may exaggerate the patient's situation on admission and make him appear much worse than he actually is. An evaluation period is indicated for the hemiplegic patient before admission to an active rehabilitation program. This evaluation period may for the reasons indicated above, take two to three weeks to determine whether he is a feasible candidate for rehabilitation. The extent of brain damage may, in some instances, be the determining factor for the patient's employability. The less brain damage, the easier it is for the patient to learn to retain new material and to apply it in an effort to minimize his physical disability. In the end analysis, the less brain damage, the more feasible it will be for the patient to achieve economic independence.

Statistical Study of the Rehabilitation of Hemiplegics

Fifty hemiplegic inpatients of the Rehabilitation Institute have been selected to comprise the following study. These patients have been selected as good rehabilitation candidates. The term "good rehabilitation candidates" is meant to indicate those patients with whom it was felt that a realistic rehabilitation goal could be established. If the patient was felt to have coexisting complications that would seriously hamper an active rehabilitation program, the patient was not subjected to an intensive program. Thus it should be clearly established that the patients selected for this study were those who could be upgraded in some functional area.

In approximately 50 per cent of hemiplegic patients there is a coexistent problem of aphasia. Of the 50 hemiplegic patients selected for this study, 18 were actively engaged in a program of speech therapy for their aphasia.

In the study we evaluated the progress of the 18 hemiplegic patients with speech involvement in three critical areas: 1) Receptive aphasia — difficulty in comprehending the spoken and written word; 2) Expressive aphasia — difficulty in expressing oneself either through spoken or written language; and 3) Dysarthria — the motor aspect of producing speech, manifest in articulation errors of varying severity. On admission, of these 18 patients, 15 had receptive and expressive aphasia and dysarthria, 2 had only dysarthria, and 1 had expressive aphasia and dysarthria.

Some improvement was made by all patients rated severe and moderate in the area of receptivity. Three patients who were severely involved on admission moved into the moderate category, and six patients improved from moderate to mild. No change was made by six patients who remained mild.

In 13 of the expressive aphasics, 8 patients remained severely involved and the other 5 progressed to moderate on discharge. One patient rated as moderate improved to mild and one remained in the moderate category.

Four out of seven patients with dysarthria stayed severe. Three patients improved from severe to moderate. Two remained in the moderate category. Two patients moved from moderate to mild, and four remained mild. Three moved from mild to none. Two out of the latter three had no other language involvement.

It should be noted that improvement was made by all patients rated severe and moderate. It is our belief that the poor performance of these patients on initial evaluation is in part due to depression, withdrawal and lack of stimulation to communicate. Language therapy must be aimed at these secondary effects of the vascular lesion as well as the primary organic defect of aphasia. Patients with more severe receptive aphasia and/or dysarthria tended to improve less in the expressive sphere.

The 50 hemiplegic patients were then selected for statistical analysis and evaluated primarily for achievement in functional upgrading. Of the 50 patients, one was 16; 15 came into the age group of from 30-50; 28 were from 51-70 and six were 71 and over. We have broken down the statistics to those patients who were upgraded and restored to useful community living and those where it was felt that full economic independent restoration was feasible (Table 1).

As noted in the chart, it will be seen that approximately 42 per cent of the hemiplegic patients were upgraded and restored to useful community living. The phrase "useful community living" is defined as those patients capable of independent living within the community. These patients may ambulate with standby assistance, but performance and sta-

Table 1.
Restoration Among 50 Hemiplegics

	Patients restored to useful community living on discharge	Patients restored to fullest possible economic independence on discharge
All categories	42%	22%
Patients without medical complications	64%	14%
Patients with associated medical complications	33%	25%
Six months or less from onset of disease to date of admission to Institute	61%	33%
Period of over six months from onset of disease to date of admission to Institute	17%	14%

bility during ambulation are somewhat erratic. This category of patients may care for themselves in the areas of feeding, clothing, and toilet activities, and can be left alone during the major part of the day, thereby allowing the next of kin to be employed. Thus, indirectly they may be economically productive by allowing the wife or husband freedom to work. Referring back to the graph, it will be seen that 22 per cent of the patients who went through the rehabilitation program were restored to the point where economic independence was deemed feasible. It should be noted that although it was felt that they were capable of economic independence, the Rehabilitation Institute does not involve itself with direct vocational placement. If a patient has little organic brain damage and his physical condition warrants his being employed in the competitive market, a referral is made to the proper agency. It is the agency's responsibility to follow through on Institute recommendations.

It was felt that it would be very practical to consider the question of what is a "good rehabilitation candidate." In many instances, although the physical disability may be slight, cerebral dysfunction may be great and of course, if an associated medical complication exists, it may retard the patient's progress in the rehabilitation program. It can be seen that 64 per cent without medical complications were restored to useful community living. Fourteen per cent of those patients who had no associated complications were restored to possibly full economic independence.

In comparison, of those patients with complications, only 33 per cent were restored to useful community living and here, paradoxically, 25 per cent were restored to possible full economic independence. If one compares the figures of those patients without complications to those with complications, one might expect a complete reversal of the statistics, particularly in the area of possible full economic independence. It may help to explain the situation with the fact that these statistics represent patients who were hospitalized for inpatient treatment. If at all feasible, those patients without complicating factors are seen and treated usually on an outpatent basis and therefore do not appear on the statistical analysis. If the analysis were to include those outpatients with no complicating conditions, then the statistics may very well have been reversed. This would have produced results consistent with what one may have normally expected.

Another vital factor affecting the rehabilitation of a hemiplegic victim is the duration of this disability. It was found that the better rehabilitation candidate is that patient who enters an active rehabilitation program with his disability existing for six months or less. It can be seen at a glance that a much greater proportion of the patients were upgraded with a small amount of time elapsing from the onset of the disability to the date of admission to the Rehabilitation Institute. Sixty-one per cent of the patients of six months or less duration were restored to useful community living. Thirty-three per cent were restored to fullest possible economic independence.

In contradistinction, only 17 per cent of the hemiplegic patients whose disability existed for over six months were restored to useful community living. Only 14 per cent were restored to fullest economic independence possible. It should again be emphasized at this point that the patient benefits far more from an active rehabilitation program when his disability has not had a chance to induce contractures. It is essential that the patient develop a health habit pattern and receive the early benefits of an intensive and stimulating program than to allow him to vegetate in despair.

Summary and Conclusions

It has been attempted to acquaint the reader with the rehabilitation program for the hemiplegic patient. The roles of the various personnel who are involved in the therapeutic program have been described. It must be kept in mind that to a great extent, the success of rehabilitation for the hemiplegic rests with the institution, where an early rehabilitation program following the cerebral insult can be established. Some of the factors complicating the stroke victim's functional upgrading are the extent of organic brain damage and coexistent medical complicating factors. The approach to the evaluation of the patient as a rehabilitation candidate is a joint one. It is a group approach representing all the medical specialties. The rehabilitation program treats the patient as a total person, having needs in many areas. These needs can only be met with a total approach.

Fifty hemiplegic inpatients of the Rehabilitation Institute were chosen for a statistical study to determine the number of patients who will be functionally upgraded to both useful community living and feasible economic independence. It is found that 64 per cent, or nearly two-thirds of all hemiplegics can benefit the most from an active vigorous rehabilitation program. There are many hemiplegics who can be upgraded to a less dependent role in the remaining group. It was found that those patients without coexistent medical complications benefited the most from an active rehabilitation program. In this category, 78 per cent were considered to be successfully rehabilitated; whereas, only 58 per cent with coexisting complications were rehabilitated. More pertinent, it has been found that 94 per cent of the patients whose hemiplegia has existed for six months or less, were successfully rehabilitated compared to only 31 per cent of the hemiplegics who had paralysis for over six months.

We would like to express our gratitude to Anita Halper, Chief of the Speech Therapy Department for her contribution to this paper. We would also like to express our gratitude to Miss Ellen Keely for compiling the statistical analysis and to those who helped edit this paper.

Sports Tests for Children

The American Association for Health, Physical Education and Recreation (AAHPER) may be calling next in your community to give a group of proficiency sports tests to children of elementary, junior and high school levels. They expect the test to have a major influence in stimulating the youth of the nation to greater proficiency in all sports. In so doing, they hope to allay the fears of parents and educators who are concerned with the physical development of our youth.

In all, 18 sports will be covered including tennis, swimming, basketball, boating, volley ball, football, golf, badminton, softball, bowling, shooting, gymnastics, roller skating, archery, canoeing, water skiing, soccer and handball. The tests will be conducted by 58 research specialists who have set up a series of proficiency tests in each of these sports with a view toward establishing a graduated scale of performance standards in each sport.



Blast-off:
May 12-16

Launching site:
Sherman House, Chicago



MEDICINE in the OUT-OF-DOORS

"Bugs 'n Blood 'n Rabbit Fever . . ."

Julius M. Kowalski, M.D., *Princeton*

Thousands of Minute Brown Eggs lie in the debris on the woodland ground. In due time from these emerge yellow "seed ticks" or larvae only 1/40 inch long to become dark gray nymphs about 1/16 inch in length. After a blood meal metamorphosis continues until their identity is certain. They now possess four pairs of well-developed legs, a flat scale-like body (females dark brown and males a slate gray) the length of which is slightly in excess of 1/16 inch, but when engorged with a blood meal it becomes bulbous and measures 1/2 inch.

There is nothing unusual in this change from egg to adult in insects, but the singular difference here is that the adult female wood-tick infected with *Pasteurella tularensis* transmits this pathogenic bacteria of mammals to her offspring. The thousands of infected progeny, themselves undaunted by *P. tularensis,* will inoculate the first rabbit, squirrel, gopher, woodchuck or any other mammal they feed upon.

Ground birds such as pheasants and quail also become infected with tularemia through ticks. The disease has been found in all woodland animals — skunks, beaver, muskrat, coyotes, and domestic dogs and cats. In one year 5,000 sheep died of the disease in Idaho.

Other insect vectors perpetuate the smoldering endemic disease. In Utah, tularemia is also known as deer fly fever since it has been shown that this insect transmits the disease from infected to healthy subjects through its blood-sucking habits. In the rodent population fleas and lice are additional spreaders of the disease.

In man the disease is most frequently acquired while skinning or butchering game animals and occasionally, in the processes of dressing game birds, but rarely by direct insect bite. Infected rabbit carcasses are the predominant offenders in transmission to humans. This is understandable since rabbit hunting far exceeds all other types of hunting combined in this country. Favorable rabbit habitat is anywhere pastures or meadows with brush piles or weedy fence rows are found, and often within easy walking distance from suburbia for boys or doting old men.

Tularemia is found in all the states and Canada and throughout the north temperate zone wherever rodents — particularly rabbits — and ticks abound. This is an all-encompass-

Table 1
Tularemia Incidence in the United States

Year	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951
Cases	365	390	459	587	601	522	684	681	601	668	*
Deaths	*	3	7	6	3	4	9	4	7	8	9

*Figures not available for this tabulation.

ing range. In Table 1 the number of cases and deaths from tularemia reported in the United States during the past decade are recorded. These figures are not impressive, but as is true with many notifiable diseases, not all come to medical attention. Unfortunately, the primary diagnosis in each case under medical surveillance is not always reported.

It is of interest to note that in Illinois for the year 1961 the highest incidence of the disease occurred in December, followed by November and then January. This is generally true in the other states also, since hunting seasons are largely confined to the fall and winter months.

The Illinois Department of Public Health reported 39 cases, including one death from tularemia for 1961. This is slightly over 10 per cent of the cases in the national total, but does not necessarily mean that the disease is more prevalent here. Rather, it could signify a greater awareness and prompt reporting of the disease by both the public and medical profession.

Table 2 lists the source of infection in the 39 cases for 1961 in Illinois.

Table 2
Sources of Tularemia in Illinois, 1961

Rabbit	22
Chicken	2
Squirrel	2
Unknown (Indicated as hunting, trapping, etc.)	13
Total cases (including 1 death)	39

The carcass of every upland game bird or animal should be observed for possible tularemia infection. Being a septicemic disease, all organs may show the typical whitish-yellow nodules, 2 to 3 mm. in diameter, but many will be barely discernible to the unaided eye and others might be large, singular or grouped, and may measure up to several cm. in diameter. The liver should be readily identified by the average huntsman and if on its reddish-brown surface any light colored tubercules appear (usually about match head size) the animal should be considered infected and properly discarded. Further, slicing the liver with a knife and observing the cleaved surfaces for light colored circumscribed areas of infection is desirable. These nodules of *P. tularensis* should not be confused, however, with the glistening pearly-gray lymph nodes lying in close proximity to the bowel. The latter may be round, ovoid or oblong, of varying sizes, and are present in every animal which is perfectly normal.

In man, tularemia presents symptoms akin to influenza with sudden onset; severe headache, chills and fever, temperature to 103° F. or higher. Achiness and weakness are usual after an incubation period from a few up to 10 days. These symptoms persist in varying degrees for about two weeks or longer, but the constantly elevated temperature is most significant.

A day or two after these symptoms the patient becomes aware of an inflamed, tender cut, abrasion or other break in the skin on his fingers or hands and painful, enlarged lymph nodes in one or both arms. It is simple to regard this finding as an infection from wire or brier inimical to his outdoor pursuit. The lesion on the extremity does not respond to treatment as it should but instead progresses to a punched-out ulcer. This is the most frequent chronology of the disease and relating these findings to the recent dressing of game makes tularemia a strong clinical impression.

A less common involvement affects the eyes from blood, body fluids or rinse water being splashed into them or inadvertent wiping of the eyes with soiled hands while dressing infected game. Painful involvement of the eye and the constitutional symptoms soon bring the

patient to medical attention.

Tularemia can be acquired also by eating infected game which is inadequately cooked or by drinking contaminated water. Holding game in a freezer locker for long periods will not reduce the hazard of the illness. All game at all times should be thoroughly cooked; this heating destroys the organisms and the meat then is edible.

Pasteurella tularensis is unique in that many experienced laboratory workers will eventually succumb to infection after constant exposure despite their careful techniques and knowledge of the organism. Some evidence exists that it needs no portal of entry but migrates through the unbroken skin; this characteristic has caused it to be considered for germ warfare.

No immunizing agent has been developed as yet against tularemia. Fortunately, streptomycin and dihydrostreptomycin are drugs of choice in treatment and some of the other broad-spectrum antiobiotics are effective also.

There are a number of precautions a hunter can take to minimize the risk of infection. Wild rabbits always bound away from the hunter or dogs, but an animal that is sluggish does not move far after being startled and, in all probability, is diseased and should not be used for food. However, rabbits that live in close proximity to homes and are familiar with people may be nonchalant in their movements though not diseased.

The wearing of rubber gloves is desirable in dressing game for protecting the hands. Splashing of blood or rinse water should be avoided. Thorough and repeated washing of hands with soap and water is worthwhile immediately after such activity.

Any suspect carcass should be buried or burned to reduce the spread of the disease to scavengers.

Most hunting seasons occur late enough in the year so that many of the diseased animals will have died off. The majority of ticks and other blood sucking insects are in hibernation by then, too. However, when the fall or winter is relatively mild and in the southern states where weather is not too severe, recently infected animals may be present.

Tularemia is not an important disease numerically, but it is a serious one, nonetheless. It is largely preventable if its presence is kept in mind and adequate precautions are exercised.

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Sober Commitment

Dr. George E. Shambaugh suggests how Illinois authorities can get the drinking driver's consent for determining his blood alcohol level when he is involved in an automobile accident. At the present time they cannot be prosecuted because they cannot be forced to have tests made. Dr. Shambaugh's method is simple: Get his consent when he obtains his driver's license. All it takes is a provision written into state driver's laws. Nine states have already written this "implied consent provision" into their statutes.

The View Box

Leon Love, M.D., *Chicago*



Leon Love, M.D.

Dr. Leon Love, who succeeds Dr. Franz Gampl as author of the monthly feature "View Box," is Director of the Department of Radiology at Cook County Hospital and Assistant Professor of Radiology at the Chicago Medical School. We are pleased to welcome him as a contributing author to the Illinois Medical Journal.

This 26-year-old Negro male entered the hospital complaining of chills, fever, a 25 lb. weight loss in 2 months, and intermittent pain in chest and back.

Physical examination revealed a chronically ill patient who was fairly well developed. His temperature was 101° F. The only pertinent physical finding was a splinting of the back muscles and mild tenderness over the dorsal spine on palpation.



FIGURE 1. PA Chest.



FIGURE 2. Right Lateral Chest.

What is your diagnosis?

1) Carcinoma of the lung
2) Aortic aneurysm
3) Hodgkins Disease
4) TBC of dorsal spine

(continued on next page)

From the
Cook County Hospital

The View Box — diagnosis and discussion

(continued from preceding page)

This represents a tuberculous Pott's Disease involving D_5, D_6 and D_7, with a right paratracheal density which is a result of a cold abscess. This density extends down to the level of D_{10} along the right thoracic border.

On the PA film a density is noted at the same level as the ascending aorta. The shadow of the aorta, however, is well visualized, suggesting a posterior location of the process. If the aortic shadow on the right were obliterated, the process would be in an anterior location (silhouette sign).[1]

On the lateral chest film, the diagnosis is confirmed. There is almost complete destruction of the body of D_6, with anterior wedging of D_5, D_6 and D_7 and almost complete loss of the intervertebral disc spaces of D_5, D_6 and D_7. The tuberculous process within the vertebral bodies results in the breaking down of several vertebral segments with extension into the disc spaces.

The AP film of the dorsal spine reveals the destructive process and the paraspinal abscess extending down to D_{10} on both sides of the dorsal spine. Usually the disease involves more segments than visualized on X-ray.

The diagnosis was confirmed at surgery.

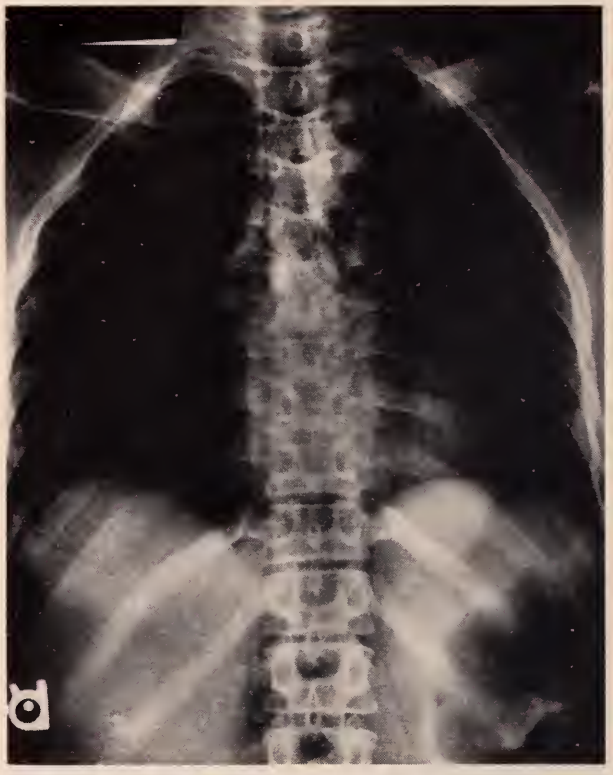


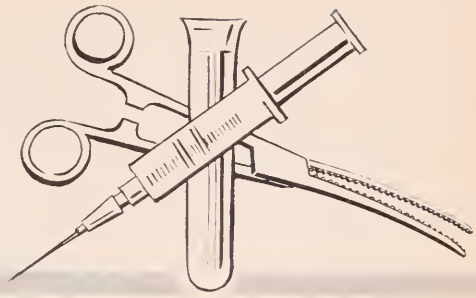
FIGURE 3. AP Dorsal Spine.

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Myofascitis

Copeman and Ackerman, in 1944 and again in 1947, reported a series of biopsies performed on patients suffering from so-called "fibrositis" in which they excised the nodules from the trigger areas. In all their cases they were able to demonstrate subfascial protrusions of fat either bulging under the fascia, protruding through it, or actually pedunculated through foramina. These findings were constantly in areas long associated with such syndromes and they speak of the "basic fat pattern" to be found in these areas. From their work it would appear that the "fibrositic nodule," so-called, in many instances, is in fact a fatty mass which can be broken down by sufficient trauma, such as by deep hand massage. We are in agreement to the extent that herniated fascial fat and the associated syndrome is common enough to be looked upon as a distinct entity. But should it be classified as myofascitis? Or, can it be? We, incidentally, at Kecoughtan VA Center, have had three such patients operated upon in the past six months with complete relief of symptoms following removal of the fatty nodule. *Carl W. LaFratta, M.D., & Jack B. Porterfield, M.D., South. M.J., November 1961.*



Clinical Surgical Conferences

Cook County Hospital

Vasospastic Disorders

Moderator: John A. Boswick, Jr., M.D.
Department of Surgery, Cook County Hospital and Northwestern University Medical School
Discussant: David I. Abramson, M.D.
Professor and Head of Department of Physical Medicine and Rehabilitation, Professor of Medicine, University of Illinois College of Medicine

Dr. John A. Boswick, Jr.: Patients with vasospastic disorders are not cooperative, and the difficulty in arriving at a proper diagnosis is often related to this fact. These patients soon learn that their condition falls in the category of etiology unknown and that therapy is perhaps somewhat limited. It takes a great deal of fortitude to take care of these patients, and I thought it was very courageous for Dr. Abramson, our guest, to say yes immediately when we asked him to discuss this topic. Dr. Abramson is professor of medicine, as well as professor and head of the department of physical medicine and rehabilitation at the University of Illinois College of Medicine.

Case 1

This is a 28-year-old Negro female admitted to Cook County Hospital in January of 1959 with a history of having had attacks of numbness and coolness in both hands accompanied by pallor, cyanosis, and flushing. These attacks were essentially painless and occurred about every three to four weeks. They occurred primarily or at least more frequently in the winter time when exposed to sudden cold. There had been occasional attacks at other times when the patient was extremely fatigued or emotionally disturbed. During the past 18 to 24 months the attacks had been slightly more frequent and had been followed by small ulcerations on the tips of two to three fingers of each hand. These lesions had healed rather promptly with small depressed scars (2 to 3 mm.).

Physical examination revealed a W D, thin, N F, who appeared in no distress but slightly nervous and agitated. Pulse rate was 100, BP 140/90. There were two to three small depressed scars over the finger tips of each hand, the palms were described as being extremely moist and the deep tendon reflexes hyperactive. Otherwise the physical examination was not remarkable. Laboratory data revealed a normal hemogram, five specimens were reported negative for LE cells, and a biopsy of one of the scars showed no connective tissue changes. A neurologic and dermatologic consultation was noncontributory, and on the eighteenth hospital day an operation was performed.

Dr. Boswick: Dr. Abramson, we would like to ask you to start off by discussing this patient from a diagnostic standpoint and what you would offer for therapy. Or, if you would rather discuss vasospastic disturbances in general, please feel free to do so.

Dr. David I. Abramson: The pertinent point in the history is that the patient is a young female who apparently has no obvious difficulties other than the ones that brought her into the hospital. These for the most part, consist of color changes in a certain sequence; pallor, cyanosis and rubor, precipitated by exposure to cold or by emotional excitation. However, the protocol does not mention in what portion of the hand these color changes are located, a point which is most important in the diagnosis. In the case of Raynaud's disease by definition, the color changes must be limited to the digits and must not spread onto the hand or foot proper. Once the alterations are observed in sites other than the digits, one cannot make the diagnosis of Raynaud's disease. Also of interest is the fact that rarely are the color changes present in the thumbs.

Of importance in the diagnosis is whether or not there is bilateral involvement. It is true that in Raynaud's disease, at the beginning, there may be unilateral involvement of the fingers and then later, of the fingers of both hands. If the condition remains unilateral, the possibility of its being Raynaud's disease is slight. Instead one should look for other pathology, such as a scalenus anticus syndrome or a hyperabduction syndrome. One should be more specific with regard to the history of onset. Did it occur first in one hand and then in the other, or did it occur simultaneously in both hands? Also something that is not quite characteristic in the present case is the fact that the patient had the color changes without any associated symptoms. Of course the reactivity of the patient to pain will vary. If there is a high threshold for pain, it may be described as minimal, or the reverse may be true. In most instances, the patient complains of numbness when there is no blood flowing into the fingers and later when there is re-establishment of circulation, generally various types of paresthesia are experienced.

I would like to mention briefly the basis for the color changes in Raynaud's disease. The initial change is due to sudden and complete spasm of the digital arteries, with no interference with blood flow out of the finger. Eventually there will be no blood in the subpapillary venous plexus and, of course, the finger will now be cadaveric. If there is intermittent spasm, so that at intervals a small amount of blood will reach the finger, this will remain in contact with the tissues for a long period, with the result that when it enters the venules, it will contain a low concentration of oxygen. Consequently, the skin will be colored blue. Another possibility is that there is an associated spasm of the veins. Under these circumstances, whatever blood gets in cannot get out, and again the skin will be colored blue. With re-establishment of circulation and with removal of spasm, there will be flushing or rubor.

This is a manifestation of reactive hyperemia, i.e.; a repayment of the oxygen debt incurred by the tissues during the period when no blood was flowing in. These typical changes of pallor, cyanosis and rubor are not necessarily present in most instances, and the diagnosis can still be made if either pallor or cyanosis is present, limited to the fingers and elicited by exposure to cold or emotional excitation. There may be no obvious rubor. Therefore, one can have pallor, rubor and normal color, or cyanosis, rubor and normal color. It must be realized that we can and we are dealing with many vasospastic phenomena, some of them non-descript. Hence, if we can pull out of this group certain ones that are fairly typical, like Raynaud's disease, this should be done. We must make a differential between Raynaud's disease and Raynaud's phenomenon, because in both instances the color changes and the stimuli producing the color changes are the same. The only difference is that in Raynaud's disease there is no apparent etiology, with the condition existing for a minimum of three years without any apparent etiology appearing before the diagnosis can be made.

I have seen several young females with the diagnosis of rheumatoid arthritis, who subsequently had color changes and the diagnosis was changed to Raynaud's disease. Finally they demonstrated involvement of other organs, and then it was realized that we were dealing, not with rheumatoid arthritis or Raynaud's disease, but with disseminated lupus erythematosus, in which some of the manifestations consisted of

arthralgia and Raynaud's phenomenon. So one must be cautious with regard to the diagnosis when dealing with an individual who has had color changes only a few years. In the case of the patient who has had this type of change for 10 to 20 years without involvement of the blood vessels and without apparent etiology, then the diagnosis of Raynaud's disease can be made with certainty. The prognosis of Raynaud's phenomenon depends on the underlying pathology. If this is lupus erythematosus, the prognosis is bad, while in the case of such conditions as frostbite, it is good. It is important, therefore, to make the differentiation between Raynaud's disease and Raynaud's phenomenon as early as possible. Raynaud's phenomenon may be associated with many, sometimes, unrelated conditions. Any type of prolonged exposure to cold may result in typical color changes. Certain occupations are also associated with Raynaud's phenomenon, such as pneumatic hammer disease, as well as "collagen" disorders: Polyarteritis nodosa, rheumatoid arthritis, dermatomyositis, scleroderma, systemic lupus erythematosus. Certain occlusive arterial vascular diseases, like Buerger's disease or arteriosclerosis obliterans, may likewise demonstrate episodic spasm of the digital arteries. Then there are the various conditions in which there is pressure on the nerves of the brachial plexus or on the subclavian artery producing symptoms in the fingers.

Raynaud's disease is six times more common in females than in males. In my practice every patient I see with Raynaud's disease is a female. However, in the Army we were able to collect 70 cases in males, and there was another series from the Mayo Clinic of 100 cases in males. In private practice, therefore, the burden of proof is on the physician who makes the diagnosis of Raynaud's disease in a male.

I think it is very important in the treatment of patients with Raynaud's disease to emphasize to them that the condition is one that will not end up with gangrene of the fingers, necessitating amputation of a hand. I have only seen one patient who had ulcerations, finally resulting in amputation of the distal portion of a finger. All of the other cases which I treated had either no lesions or superficial ulcerations.

The patient must be assured on this score, since most people lump all vascular diseases into a single category, visualizing amputation of several digits or entire limb. Such a point of view does not help the patient with Raynaud's disease a bit. It must be recognized that any patient who sees his fingers suddenly become dead white views this phenomenon with much anxiety and apprehension anyway, even if nothing else occurred.

With regard to therapy, being a medical person, I am oriented in the direction of the medical approach. Only on occasion do I suggest sympathectomy, because in most instances the condition can be treated, or at least controlled, medically. Sympathectomy is no panacea for this condition. If an individual has ulcers of the finger which do not respond to medical treatment, sympathectomy will often give rapid healing; however, it will not prevent the appearance of other ulcers in the hand. In the patient with Raynaud's disease, I mentioned above, sympathectomy was done with healing of the ulcers, but there was recurrence of trophic changes necessitating amputation. Sympathectomy removes normal vasomotor control and it does away with the possibility of reflex vasoconstriction producing the color changes. Many patients will mention that if they take a cool shower, they will get an attack in the fingers at that time.

It is the change in the temperature of the environment that is important. However, in a sympathectomized extremity, reflex vasoconstriction is lost. From this point of view, sympathectomy does reduce the number and severity of attacks, but it will not do away with them because the blood vessels themselves have an inherent abnormality in the form of an increased responsiveness to cold. Some of the patients with involvement of four extremities become very unhappy if all the limbs are sympathectomized. Since under such circumstances they now have to lose heat by sweating from the abdomen and back. If it is very hot, these individuals will develop a rise in body temperature because of the inability to lose sufficient heat by such means. In the case of an extremity which is not helped by medical therapy and because of the restriction of activities outdoors, the patient is partly incapacitated, a decision must be made as to whether one should move to a warmer climate. It must also be pointed out that sympathectomy may cause increased

sensitivity to circulating vasopressor substances and one must consider this possibility in the determination of whether or not the operation should be performed. I give patients vasodilators, but not because I feel that they will do away with the condition, but because they may control many of the attacks and reduce their severity. I also have the patients buy hand warmers so that they can keep their hands around them when they are out in the cold. They must wear mittens and be well dressed. If they drive, I have them buy an instantaneous heater, since most of the patients will have attacks when they are out in the cold, and touch the cold wheel. The important thing is to prevent injury to, and ulceration of, the fingers.

Dr. Boswick: This patient had trouble for about nine years and it was limited to digits. With this added information would you make a diagnosis?

Dr. Abramson: I would say that she is suffering from Raynaud's disease. This is substantiated by the fact that there is no indication of involvement of the main arteries. With all five specimens negative for lupus erythematosus, one should be able to eliminate this diagnosis. There is no history of frostbite. I would say that with a history of having had these changes for nine years, having developed ulcers of the fingertips which healed, and not having anything else appear that would give some basis for the existence of an underlying difficulty, Raynaud's disease is the best possibility.

Dr. Boswick: That was the feeling of our medical staff and they recommend that she have surgery. What is your routine work-up in such a case?

Dr. Abramson: In a prolonged case where there have been repeated attacks ulceration, an x-ray may show any changes in the distal phalanges. In the absence of trophic changes, I do not bother with x-ray. I do not think arteriograms are important. Palpation of ulnar and radial arteries and of the skin is helpful in making the differential diagnosis. I must mention that frequently the patient who has had Raynaud's disease for a long time will develop scleroderma in the fingers involved in the attacks. However, similar changes in the skin of the forearm or leg would cause one to change the diagnosis to generalized scleroderma associated with Raynaud's phenomenon. In the present case, the history is so typical and the findings so minimal that the diagnosis could be readily made. I do not think it necessary to look for cryoglobulins and cold agglutinins.

Dr. Boswick: Does bilaterality rule out mechanical causes?

Dr. Abramson: If the condition remains unilateral, it rules out Raynaud's disease, but if it is bilateral, mechanical causes can still be the etiologic agent.

Dr. Abramson: I should like to show first the color change that may appear in Raynaud's disease; pallor of the fingers. In contrast to Raynaud's disease or phenomenon is the condition called acrocyanosis where there is a uniform cyanotic appearance of the skin, not present in the form of episodes and not precipitated by cold or emotional excitation. It is not difficult to differentiate Raynaud's disease from acrocyanosis. The latter is an innocuous disease related to spasm of the very small arteries and arterioles and paralysis of the venules. Livedo reticularis is another vasospastic disorder which may be present with Raynaud's disease. It is not precipitated by exposure to cold although cold will exaggerate it. There should be no trouble differentiating this from Raynaud's disease or phenomenon.

The patient who has cyanosis limited to the fingers, which is present regardless of exposure to cold, can be eliminated because the change does not occur in the form of attacks. Any mechanism that slows down the blood flow through a finger and is present for any time will produce cyanosis. It is very important to determine whether or not the change is reversible. This is done by applying pressure to the finger. If such a step causes blanching with return of cyanosis on removal of pressure, the possibility that the color is irreversible is eliminated. Application of pressure to the finger demonstrating an irreversible alteration will not cause any change in color, thus indicating the pressure of impending or actual gangrene. Obviously the prognosis here is much worse than in the previous case in which reversible cyanosis was demonstrated. This is the type of nonspecific cyanosis seen in different conditions, such as trench foot. In this condition, following the acute phase, the individual will show signs of vasospasm with cyanosis, coldness, edema,

marked responsiveness to cold and hyperhidrosis. These are the manifestations of increase in sympathetic tone. Such a situation may exist in other conditions; frostbite, post-traumatic vasomotor disorders, and causalgia. Immobility of a part will also produce it. This is the type of ulceration that on occasion occurs in Raynaud's disease. All sorts of medical treatment were tried but without response. Sympathectomy was done and all of the ulcers healed, producing the depressed scars seen at the finger tips.

This is a case of cervical rib. You can see how this could cause pressure on the structures in the area above the clavicle, thus producing Raynaud's phenomenon.

Dr. Boswick: Our patient was operated, she had a sympathectomy on the right, and did extremely well, it was felt that this should be repeated. Operation was done on the left side three months later. She did not get the same response. She had limited trouble but not as severe for six or eight months. For the next nine months she reported to the clinic with no further disorder. We thought it was good response to the treatment.

Dr. Boswick: What do you consider an adequate sympathectomy for an upper extremity?

Dr. Abramson: It is difficult to accomplish this because the sympathetics that innervate the vessels of the upper extremity pass into the 1st, 2nd, and 3rd thoracic ganglia, and most surgeons do not like to remove these ganglia, especially since a post-ganglionic section will result. Furthermore, there is some evidence of a greater possibility of sensitivity to circulating vasopressor substances following sympathectomy in the upper extremity. I think that in most instances patients with Raynaud's disease can be treated medically. If they require surgery, I would prefer sending them to Florida to live.

Question: Is there a relationship between Raynaud's and the familial background?

Dr. Abramson: I have seen very little familial tendency in Raynaud's disease, although in several cases the mother or a sister had Raynaud's. In the Army I could never elicit any family history. I did have one patient with cryoglobulins who had a sister also with cryoglobulins and both had Raynaud's phenomenon.

Question: Do you recommend sympathectomy for scleroderma or non-specific hot feet?

Dr. Abramson: I would not recommend sympathectomy for the second group. We tried out sympathectomy for trench foot and the patients complained more bitterly of hot feet. In the case of scleroderma I do not think sympathectomy is of any use. After all, in this condition the changes are the result of actual physical strangulation of the blood vessels by the process and, regardless of what you do, you will not get very far. What happens in patients with scleroderma? They have reduced circulation to the fingers at all times, as manifested by decalcification of the distal phalanges; ulcers, etc. On exposure to cold they demonstrate a normal response to this stimulus. However, because of the underlying impairment of circulation, the superimposed constriction produces pallor of the finger. As for hot feet, there are a number of etiologies; as for example, vitamin deficiency due to lack of pantothenic acid or the burning due to peripheral neuritis or ischemic neuritis.

Dr. Boswick: You have not mentioned a subject which I thought you would and that is the relationship of smoking to Raynaud's.

Dr. Abramson: I do not believe that smoking is related to the cause of Raynaud's disease. In this regard it is different from Buerger's disease in which progression of the disease generally occurs with smoking. In the case of Raynaud's disease, I feel that smoking acts as a vasoconstrictor stimulus, and for this reason I think the patient should stop smoking.

Question: I have heard that you will not treat a patient who continues to smoke?

Dr. Abramson: Any patient with thromboangiitis obliterans should not get treatment if he smokes because he will continue to get worse.

Question: If you suspect a scalenus anticus syndrome, would you do a brachial angiogram?

Dr. Abramson: It does not always work. We have had a patient who we thought, had a scalenus anticus syndrome and we got a beautiful arteriogram with nothing to show that the condition was present. It is a hard diagnosis to make. Even after this is done I am not at all sure as to what therapeutic course I should take. I do not believe that cutting the scalenus anticus muscle or removing a cervical rib will be very helpful in many cases.

Dr. Boswick: We will now ask Dr. O'Brien to present the second case.

Case 2

This 39-year-old Negro male presented to Cook County Hospital in February 1960 with complaints of pain, coldness, and numbness in his right hand and forearm following heavy outside work. He had fifteen to twenty such attacks during the past two years. These attacks had occurred essentially during cold weather and had occurred about once a week during the past two months. Past history revealed a patient of excellent health except for the present complaints. Family history: Mother and father both died of heart disease and an older brother who had been treated for heart disease.

Physical examination revealed a W/D, W/N, N/M in no acute distress with a pulse of 88, BP 144/92. The only significant physical finding was atrophic appearing skin of the right hand and volar surface of the right wrist. Skin biopsies (2) of the right hand were not helpful, however, a dermatologist consultant felt that the lesions were clinically compatible with scleroderma. Repeat blood specimens were negative for LE cells. Neurological consultation felt the hand findings were compatible with a past traumatic lesion, however, X-rays nor history were confirmatory. Angiography of the right upper extremity was essentially normal. The patient was comfortable in the hospital.

This patient was treated entirely by the surgeons. We did not have the internists' support to push surgery. We would like your comments on what medical therapy you would recommend and then we will tell you how he was treated.

Dr. Abramson: I don't know what the diagnosis is. Certainly it is not Raynaud's disease or phenomenon because the involvement is considerably beyond the hand. It affected the right hand and forearm. It followed heavy outside work.

Dr. Boswick: It came on an hour or two after prolonged work.

Dr. Abramson: It was more apparent during cold weather, so all we can say it that the patient has a vasospastic disorder affecting the right upper extremity, becoming more marked during cold weather. The symptoms are those of vasospasm; pain, coldness and numbness. These could be due to a marked reduction in circulation to the nerves, as occurs during an attack of digital spasm, with no blood entering the finger. Similarly one could get numbness of the hand and forearm from spasm of any artery. The cause is not apparent. The atrophic appearance of the skin of the right hand could be, in part, due to disuse. I am sure any patient with pain in an extremity will favor that extremity and not use it. This could cause definite changes in the various structures.

I notice a skin biopsy was performed. Frequently, a physician who does not know what else to do will order a biopsy, and the surgeon will perform the operation, in the site where it is easiest to carry out, the calf muscles, usually, however, the pathology is not there but elsewhere. A biopsy should be done only if there is inflammation or tenderness in an area and only during the acute stage of the inflammation. The diagnosis of scleroderma should not depend upon a biopsy. If a patient has scleroderma, it ought to be obvious to anyone examining him, unless it is very early. The present patient has had the condition for several years so I do not believe the dermatologic diagnosis would be helpful. A post-traumatic vasomotor disorder would explain this, but there is no history of trauma. I do not believe I could suggest proper treatment because I do not know the diagnosis.

Dr. Boswick: This patient was operated on the involved side. He continued to have difficulty but on changing his occupation he could work very well.

Question: Does paravertebral nerve block have any value in the diagnostic armamentarium?

Dr. Abramson: It would tell you whether there is a contribution of the vasospasm and that is all. It is true that the sympathetic nerves contain not only efferent but afferent fibers also, which may be the basis for the relief of pain in causalgia, following paravertebral sympathetic block. Of course the relief could be due to the fact that on removal of vasomotor tone or spasm, more blood gets to the tissues, and with the resulting relief of ischemia, the pain disappears. At times, in the case of post-traumatic vasomotor disorders, the benefit one sees with sympathectomy or paravertebral sympathetic block is on this basis. But there are other cases in which the hand is warm and not wet, where paravertebral block or sympathectomy will also give relief. This could only be explained on the basis that when the continuity of the sympathetic nervous system was interrupted, afferent impulses were prevented from reaching the brain. What was your diagnosis in this case?

Dr. Boswick: It was felt that since the patient

had unilateral difficulty he should be sympathectomized, but no diagnosis was made.

Dr. Abramson: I feel that when evaluating any type of surgical therapy, such as sympathectomy, should be done in light of the natural course of the disease in which it is being utilized. When you consider that about 90 per cent of the patients with arteriosclerosis obliterans, who do not have diabetes and do not have hypertension, get along perfectly well and have only intermittent claudication as a complaint, it would be very hard to believe that a surgical procedure would produce results that are better than that. In the case of elderly individuals with arteriosclerosis obliterans, I think conservative therapy is sufficient to keep them going. When they die it will be because of a cerebrovascular accident or a myocardial infarction and not because of the difficulty in the legs. Hence, I rarely advise sympathectomy in an elderly patient. In the case of a young patient with thromboangiitis obliterans, who has an ulcer of the great toe and in whom medical treatment does not help, then sympathectomy done at the time the toe is amputated may help healing of the stump. The effects of sympathectomy, and I must emphasize this, are transient, a significant increase in blood flow lasting only for a few weeks. Therefore, the operations should be so timed that the effects of sympathectomy are still present when the other procedure is done.

A forty-year-old man with arteriosclerosis obliterans, who has to earn a living and finds he cannot do so because he can only walk half a block is a good candidate for a graft procedure rather than a sympathectomy. Even most vascular surgeons will say that there is no basis for doing sympathectomy in a patient with arteriosclerosis obliterans whose only complaint is intermittent claudication. In a patient with a rapid downhill course, perhaps an arteriogram or an aortagram is indicated, so that it can be determined whether or not he is a desirable candidate for a graft.

Question: What about the old patient who has reached the stage of rest pain?

Dr. Abramson: This is a serious complaint and the prognosis is bad, since it indicates the presence of ischemic neuritis. Occasionally sympathectomy will help, but in general it should not be utilized for such a purpose.

Dr. Boswick: Even in the young patient with arteriosclerosis obliterans, do you feel that sympathectomy will not help?

Dr. Abramson: I would not use sympathectomy but would rather consider the possibility of a graft procedure. I would use sympathectomy only if there were trophic changes limited to the toe or toes or if there was some vasospasm present.

Dr. Boswick: Thank you very much, Dr. Abramson, for your help and comments regarding this difficult subject.

Summary Review

1. Vascular tonus varies considerably in normal individuals — those with increased vasomotor tone tend to have cold hands and feet and to lose temperature rapidly upon exposure to a cold atmosphere. Those with decreased tonus tend to remain warm and to cool slowly in a cold environment.

2. The differentiation between normal individuals with abnormal vasomotor tonus and those suffering from a true vasospastic condition can be extremely difficult.

3. The capillary bed is the portion of the vascular system primarily responsible for fluctuations in caliber to meet the response or need for heat loss or preservation. Mucosal surfaces and the skin of the hands and feet are principally affected.

4. The most severe pathologic vasomotor phenomena follow a routine set of changes in which there is an abnormal sensitivity to the vasoconstrictor influence of exposure to cold and emotional disturbances. The sequence occurs and progresses in such a way as to suggest a self limiting process; the skin rapidly becomes white (presumably due to vasospasm), followed by a blue cyanotic colon, then rubor, and a return to normal.

5. Raynauds phenomenon or disease is the term usually applied to these changes. Raynaud theorized that the defect was in the vasomotor nerves of the affected part without an arterial lesion per se.

6. A more modern concept is:
 a. Those with no primary arterial pathology
 b. Those with an underlying arterial disease or presenting the vasomotor response due to trauma, scleroderma, or poisoning.

7. In the group without a lesion or known cause:
 a. They are usually female (4:1) with an onset between 15-35 years.
 b. They are frequently immature or inadequate
 c. The disease is strongly bilateral and symetrical
 d. The attacks are usually painless with the part normal between attacks until late in the disease.
 e. The failure of sympathectomy to completely relieve the patient points to a local vascular sensitivity.

8. The same response is seen in patients where there

is a distinct underlying cause; degenerative and inflammatory vascular disease is frequently the cause in the upper extremity.

a. An asymetrical appearance should make one suspicious of arterial disease
b. Raynauds phenomena developing after age 35 strongly suggests arteriosclerosis
c. Occurrence in males also does
d. Loss of pulses or extensive gangrene is evidence of arterial disease
e. Pain as an important symptom suggests an underlying pathologic state

9. Raynauds phenomena is frequently associated with the early edematous stages of scleroderma and may be generalized, however, sclerodermatous changes in Raynauds disease is a late feature after a progressive course and is localized to the involved extremity.

10. Proper treatment of the patient should be directed against the underlying condition, if such therapy is available, rather than against the phenomenon.

New Geriatric Generation

A recent timely report entitled "Aging in a Changing Society" (from the 11th Conference on Aging on Gerontology, June 20, 1962), appears when physicians, above all others, need to be prepared to answer the demands of politicians, students of the social sciences, and their own patients on how to use effectively the year added to life by medical progress. It is paradoxical for the medical profession to be assailed for providing the gift of longer life, but the profession is now challenged to provide for the sustenance of this gift and for help in solving the problems resulting from its creation.

They are not small problems and they will not be solved by rash action. In the past ten years, the number of persons in the United States 65 years old and older increased by nearly 35 per cent, while in the so-called productive years there was a loss of 6 per cent in the age group between 18 and 29 years and only modest gain (13 per cent) in those 30-64 years old. The older population now comprises 15 per cent of the electorate and is certainly sufficient to justify circumspection to avoid forcing older people into a "segregated collective" seeking, as suggested by Dickinson, "a scheme whereby those close to the grave would fasten themselves on the paychecks of those closer to the cradle and ride 'piggy-back' (or piggy bank) to the grave."

Our present older population is not yet an avaricious minority group seeking only compensatory aid; rather, each individual needs constructive, self-satisfying activity which makes him feel useful and hopeful. While society has required no apology for "work activity," more charitable attitudes are necessary to make non-remunerative activities more rewarding to the individual. Not only is the motivation for employment by the older individual important, but also the need for skills, education, and the overcoming of physical and psychological disability is essential to make the life of the older individual satisfying.

The monograph contains much data on the apparent poverty of older people and considerable about their need for relief from medical costs, but it is difficult to see how one can draw any fixed conclusion from the statistics which McGamman calls the "Battle of the Income" or the "numbers game." Obviously some elderly people are in genuine need for specific medical care, but, as George Harrell, Dean of the College of Medicine of the University of Florida, pointed out in the final paper, the nonmedical problems such as "adequate income," "housing" appropriate in cost and suitably constructed for specific needs of older people, and a real place in the community so that "the individual can feel useful in society" are the "greatest problems of many elderly people." *W. H. Wehrmacher, M.D., 670 N. Michigan Ave., Chicago, Ill.*

Hypervitaminosis A*

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Hypervitaminosis A was described as long ago as 1857 by Polar explorers who recorded headache, nausea, vomiting and vertigo developing after eating polar bear liver. This has been discussed in a report by Oliver[1] and Gerber et. al.,[2] and Knudson and Rothman[3] refer to similar experiences recorded by Arctic explorers in 1857 and in 1899. Subsequent studies revealed that the liver of the polar bear is very rich in vitamin A, assaying as much as 25,700 units of this vitamin per gram of wet material. Later, in experimental studies, it was shown that rats which were fed polar bear liver developed characteristic toxic symptoms but that no symptoms occurred when the liver was freed of its vitamin A content. Animal experiments with actual vitamin A concentrates were begun in the 1920's but the first human victim of chronic vitamin A poisoning was not reported until 1944. This was by Josephs[4] in the article entitled "Hypervitaminosis A and Carotenemia". The patient was a three year old boy who had received about 240,000 U.S.P. units of vitamin A daily after the age of three months. The illness was characterized by hepatomegaly, splenomegaly, hypoplastic anemia, leukopenia, increased serum vitamin A, increased serum lipids, advanced skeletal development, clubbing of the fingers, and sparse, coarse hair. Most of the symptoms cleared promptly when the excess vitamin A was removed from the diet. Since that time, several reports of acute and chronic hypervitaminosis A in humans have appeared in the literature. The early ones concerned infants and children, but recently, reports by Oliver[1] and by Stinson[5] have summarized its occurrence in older children and in adults. The youngest patient reported in the literature so far was an infant two months old (Woodward, et. al.[6]).

Two forms of vitamin A intoxication are generally recognized, acute and chronic. The former is more frequent in infants than in adults and may result from the single ingestion of a large quantity of the vitamin (Marie and Sée[7]). The cases reported in adults generally have occurred after ingestion of large quantities daily over a considerable period of time.

The development of the acute form in infants after a single, large dose of the vitamin has, in some instances, been the result of the accidental ingestion of a large quantity or because of a misunderstanding of physicians' instructions, but in some of the reported cases large doses have been prescribed. In three instances reported by Marie and Sée,[7] acute symptoms occurred 12 to 24 hours after the administration of 350,000 units of vitamin A; these were in infants 3½ months, 7½ months, and 3 months old.

The assumption that has prevailed for a long time, even to this day, that all vitamin preparations are harmless is not valid. A considerable amount of evidence has accumulated which demonstrates clearly that excessive amounts of highly potent concentrates of vitamins A and of D may produce serious illness and that large amounts of vitamin D may be fatal. Errors and accidents do not account for all the occurrences of hypervitaminosis A. The easy access of vitamin preparations without prescriptions and the widespread belief that vitamins in addition to those contained in the general diet improve health, increase resistance to infections, and hasten convalescence from any type of illness unfortunately remains firmly fixed in the public mind, making prevention difficult.

Knudson and Rothman[3] group the clinical findings in the following manner:

a. Chemical alterations
b. Anorexia and nutritional disturbances
c. Cutaneous manifestations
d. Skeletal manifestations
e. Hemorrhagic manifestations
f. Increased intracranial pressure

According to these investigators, the body may

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handle an increasing intake of vitamin A without permanently affecting the plasma level by two mechanisms:

1) Increased storage in the liver, and 2) Increased rate of destruction. However, with an enormous intake, these mechanisms do not operate rapidly enough to prevent an increase in the level of the plasma. The increase in liver storage may be so great that hepatomegaly may develop. When the storage facilities are exceeded, plasma levels of the vitamin increase from a normal of 60 to 160 U.S.P. or international units per 100 ml. to as much as 2500 international units (Oliver[1]). An increase in the serum lipids was reported by Josephs[4] which fell after excessive intake of vitamin A was stopped. Knudson and Rothman[3] interpret this as added evidence that the oxidation of vitamin A is accompanied by the synthesis of lipids and by reduction and conjugation of short chain precursors such as acetate. In the adults with chronic intoxication, in the report by Stimson,[5] there were no significant increases in plasma lipids in the cases so evaluated.

Cutaneous manifestations have been reported consistently including pruritus, seborrhea, alopecia, and intensive subcutaneous hyperemia. Extensive subcutaneous hemorrhages have been reported in experimental animals but this has not been noted in humans.

Skeletal changes are reported regularly in chronic infantile hypervitaminosis A and include painful swellings in the extremities which are usually associated with impairment of locomotive function. Roentgenographically, periostial swelling and hyperostoses occur in the ulna and metatarsals, in the clavicles and sometimes in the humeri, skull, ribs, and femurs. In the cases summarized by Stimson[5] bone or joint pain was present in all seven of the adults but x-ray changes occurred in only one.

Symptoms referable to the central nervous system result from an elevation of the cerebrospinal fluid pressure and this may, in infants, result in acute hydrocephalus with marked bulging of the fontanelle. In adults, headache, diplopia, nystagmus, internal strabismus, and choked discs have been reported. In one adult reported by Gerber,[2] symptoms referable to the central nervous system were so prominent that diagnoses included brain tumor, encephalitis, and chronic meningitis prior to the establishment of the correct diagnosis. The cause of the increased cerebro-spinal fluid pressure has not yet been determined.

In Stimson's[5] report there were two males and five females, ages varied from 21 to 52. The reasons for the medication with vitamin A were: radio-advertisement for dry throat and colds; dry fissured skin; ichthyosis; eczema of larynx; acne (twice). Reason was not stated in one. Daily dosage varied from 50,000 to 600,000 units over periods of seven months to eight years. In these cases the duration of intake before onset of symptoms varied from six months to 3½ years; relief of symptoms occurred in three to 17 days after the vitamin was stopped. In infants and children relief is also reported to be rapid after withdrawal of the medication. In the adults, the only diagnostic laboratory finding was an elevation of the serum vitamin A; this also occurred in infants and children and in addition, in the latter, elevation of alkaline phosphatase has been reported in some.

Knudson and Rothman[3] state that there is no evidence that hypervitaminosis A affects the function of the adrenal, gonads, or adipose tissue, and they state that there is no information available concerning possible injury to the fetus as a result of administration of excessive dosages during early months of pregnancy. However, congenital anomalies have been produced in rats when the intake of vitamin A has been excessive during pregnancy (Cohlan[8]).

It is generally conceded by various investigators that special supplements of vitamin A are not necessary for normal infants and children or for adults eating regular or normal diets. However, control of overdosage which may result in poisoning by this high potency vitamin is difficult and as advocated by Caffey[9] ". . . until the whole truth becomes available to the public, all authentic cases of vitamin A poisoning should be carefully reported and widely published in medical literature."

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Clinical background? This steroid has a recorded history unequaled in scope and authoritativeness among all the newer corticoids. **Quality?** HEXADROL, brand of dexamethasone 'Organon'...your assurance of professional quality through research, production and control. **Dosage flexibility?** Tablets 0.75 mg. and new strength 0.5 mg., plus new form, Elixir (0.5 mg. per 5 ml.) now available to meet prescription needs.

Cost-to-patient? Greatly reduced! Why not check with your local pharmacist on prescription cost to your patients?

Organon

Orinase Case History







Orinase dosage 1 Gm. = ⊘⊘

Mr. J. P. T. is a 58-year-old industrialist. Following 10 years on diet alone, and an additional year on insulin (15-22 units daily), Mr. T. was started on Orinase in early Fall, 1956. Control was obtained with dosage of 1.5 gm. (3 tablets) daily.

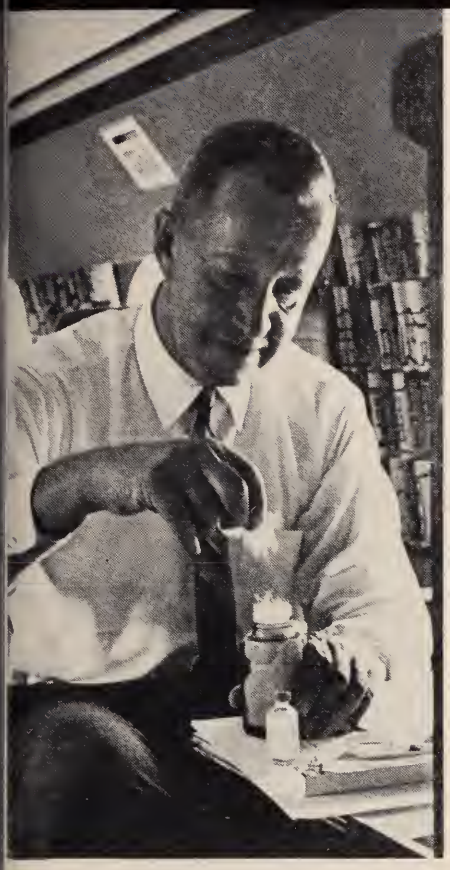
A leading executive officer of a very large corporation with interests all over the United States, Mr. T. travels constantly and extensively in his private company airplane. Despite this busy program, the patient was well controlled for more than 3 years by diet and a routine Orinase dosage of 1.5 gm. daily.

However, business trips and entertainment exposed Mr. T. to irregularities of diet. In January, 1960, the Orinase dosage was increased to 2 gm. daily without effective full control of glycosuria and hyperglycemia.

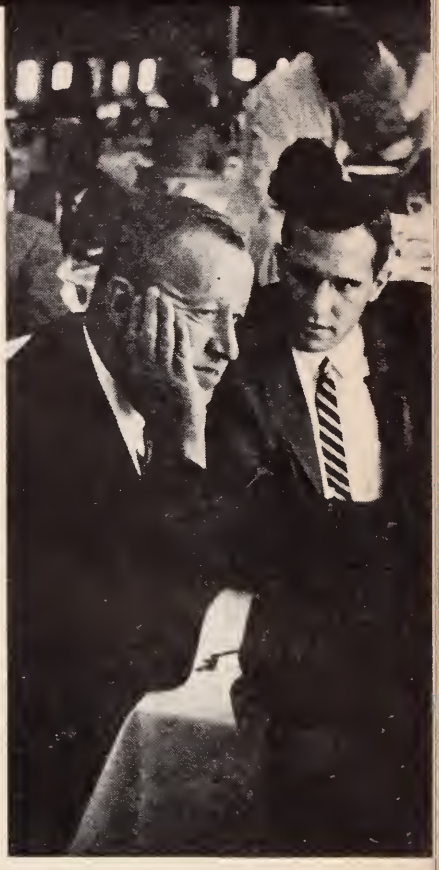
COPYRIGHT 1962, THE UPJOHN COMPANY

*TRADEMARK, REG. U.S. PAT. OFF.— TOLBUTAMIDE, UPJOHN

5 years of control







Insulin

On June 1, 1960, Orinase was discontinued. For six weeks, Mr. T. was on insulin (15, then 20, and finally 25 units daily).

In mid-July, the patient was returned abruptly to Orinase therapy, this time at a dosage of 2.5 gm. (5 tablets) daily. With a diet and Orinase, satisfactory control was re-established. Since that time, 2.5 gm. of Orinase has been the routine dosage.

Mr. T. continues in his pattern of constant travel and irregular hours. His diabetes is well controlled on a diet and Orinase, and he has no special difficulty in carrying out his work schedule.

Among oral agents for the treatment of diabetes, Orinase* (tolbutamide) stands in a unique position. It alone has had five years or more of day-to-day routine clinical use in the hands of thousands of physicians throughout the country. Accordingly, there are by now a considerable number of truly long-term Orinase-treated patients. This series of Orinase five-year case histories has been prepared to illustrate and exemplify some aspects of actual experience in management. Patient data made available to us by physicians have been factually incorporated; however, patients identities have been concealed. Any inquiries regarding this case history series should be addressed to: Medica Department, The Upjohn Company, Kalamazoo, Michigan

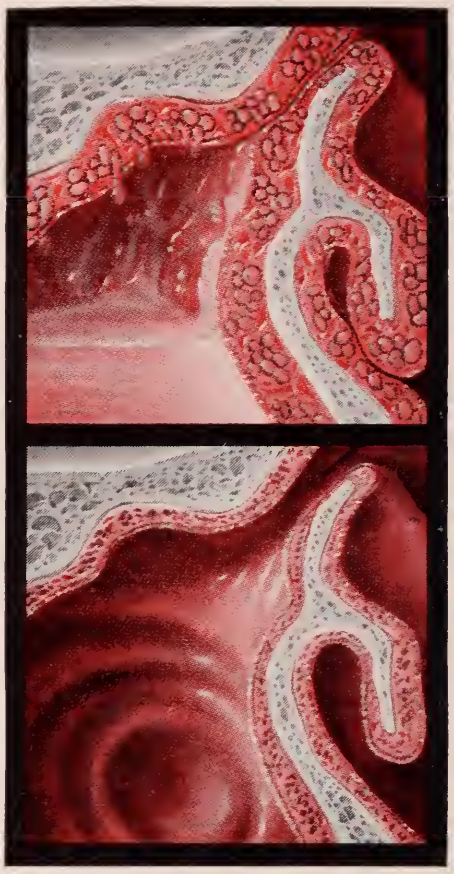
Orinase is supplied in bottles of 50 and 200 tablets.
Each tablet contains: Tolbutamide ... 0.5 gm.

Reminder advertisement. Please see package insert for detailed product information.

Upjohn

The Upjohn Company, Kalamazoo, Michigar

In colds and sinusitis unsurpassed in providing drainage space without chemical harm



The clogged sinus
In sinusitis, the mucous membrane becomes hyperemic and edematous, lymph glands and goblet cells hyperactive. Ostium is closed by edema and secretions cannot drain freely.

The normal sinus
Magnified anatomy of a portion of maxillary sinus showing mucous membrane with cilia and lymph glands. Ostium is normal and patent.

NEO-SYNEPHRINE®

brand of phenylephrine hydrochloride

hydrochloride

NASAL SPRAYS AND SOLUTIONS

When there is nasal turgescence, tiny orifices of sinus ostia tend to clog. Neo-Synephrine nasal solutions and sprays reduce edematous tissues on contact to provide prompt relief. As turbinates shrink, obstructed sinus ostia open, drainage and breathing become freer and the boggy feeling of a cold disappears.

Delicate respiratory tissue and its natural defenses are not harmed by exceptionally bland Neo-Synephrine; systemic effects are nil; it does not sting. For years it has been recommended for prevention and treatment of sinusitis.[1-3] Repeated applications do not lessen effectiveness.

Available in plastic nasal sprays for adults (½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

1. Grant, L. E.: Coryza and nasal sinus infections, **Clin. Med. & Surg.** 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): Current Therapy 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, **Journal-Lancet** 79:535, Dec., 1959.

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Especially useful in chronic pain, Darvon® Compound-65 effectively relieves inflammation and pain . . . does not cause addiction or tolerance (. . . and Darvon Compound-65 doesn't require a narcotic prescription). Each Pulvule® Darvon Compound-65 provides 65 mg. Darvon®, 162 mg. acetophenetidin, 227 mg. A. S. A.®, and 32.4 mg. caffeine. Usual dosage is 1 Pulvule three or four times daily. This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.

DARVON® COMPOUND-65 Lilly

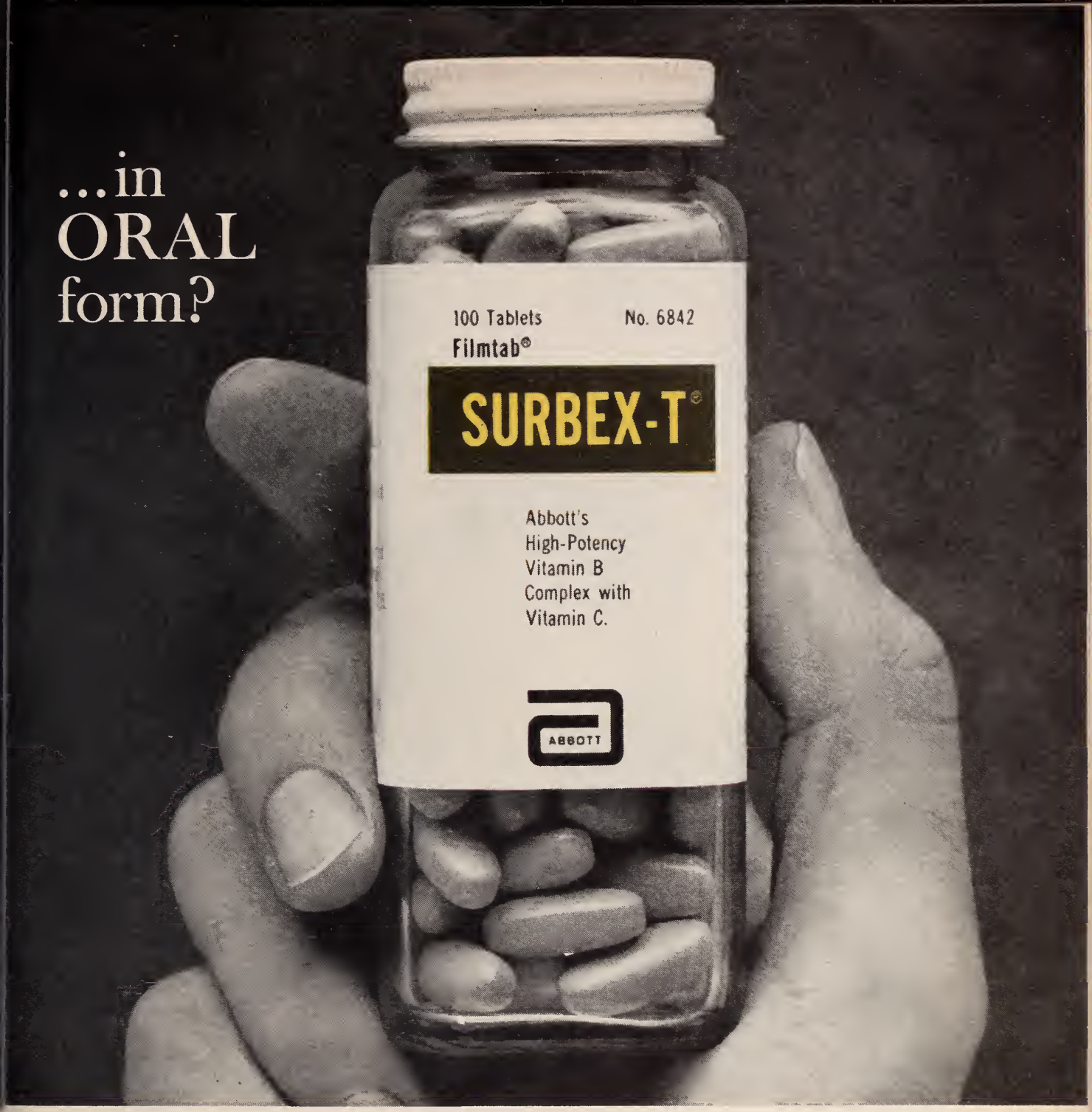
Darvon® Compound (dextro propoxyphene and acetylsalicylic acid compound, Lilly); Darvon® (dextro propoxyphene hydrochloride, Lilly) (α-*d*-4-dimethylamino-1,2-diphenyl-3-methyl-2-propionoxybutane hydrochloride); A.S.A.® (acetylsalicylic acid, Lilly) 220212



FILMTAB®

SURBEX-T® provides therapeutic B-complex with 500 mg. of C

...in ORAL form?



Patients receive replenishment in the easiest possible manner when the water soluble vitamins are depleted, or demands are increased.

Each Filmtab® Surbex-T represents:

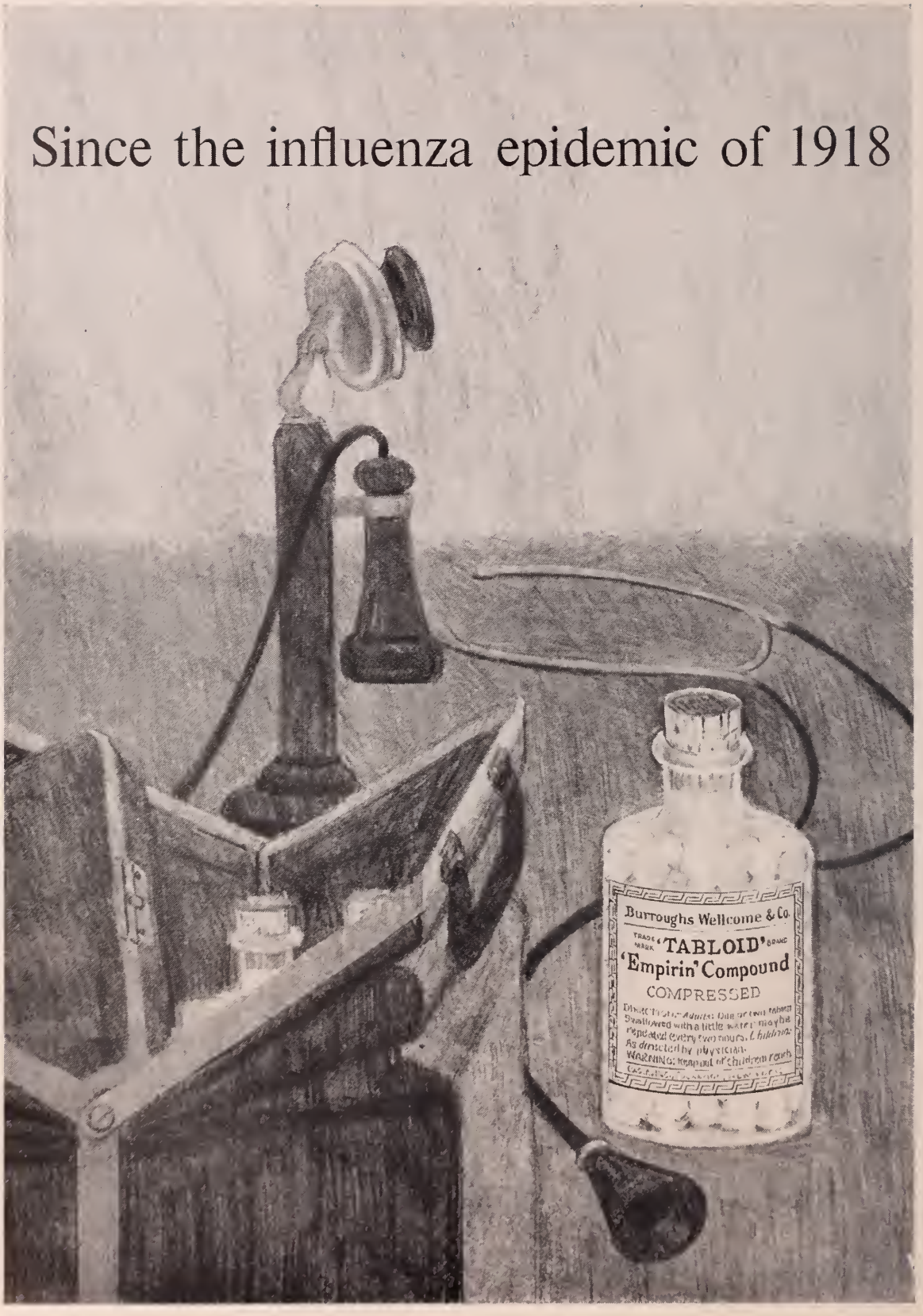
Thiamine Mononitrate (B_1)	15 mg.
Riboflavin (B_2)	10 mg.
Nicotinamide	100 mg.
Pyridoxine Hydrochloride	5 mg.
Cobalamin (Vitamin B_{12})	4 mcg.
Calcium Pantothenate (as calcium pantothenate racemic)	20 mg.
Ascorbic Acid (C) (as sodium ascorbate)	500 mg.
Desiccated Liver, N.F.	75 mg.
Liver Fraction 2, N.F.	75 mg.

...and when needs are more moderate, SUR-BEX® with C, Abbott's improved B-complex formula with 250 mg. of C.

ABBOTT

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Filmtab—Film-sealed tablets, Abbott: U.S. Pat. No. 2,881,085


Since the influenza epidemic of 1918
Burroughs Wellcome & Co.
TRADE MARK 'TABLOID' BRAND
'Empirin' Compound
COMPRESSED

....the first choice of many physicians to relieve aches, pains, fever, and general malaise of colds and flu.

Symptomatic and supportive treatment of patients with upper respiratory infections still consists largely of rest, analgesics, fluids and nasal decongestants. During the fateful influenza epidemic of 1918, 'Empirin' Compound was widely used and became well known as a well tolerated and reliable analgesic combination. It was one of the few available analgesic products effective in simultaneously reducing fever and relieving the general malaise which often accompany the flu.

Later, 'Empirin' Compound with Codeine took its place with the widely used 'Empirin' Compound, as a product useful when increased analgesia or antitussive action was desired. Today, 'Empirin' Compound with Codeine is one of the most widely prescribed drugs in medicine, providing physicians with a dependable analgesic, especially useful in relieving the symptoms of colds and flu. We believe you will also find 'Empirin' Compound with Codeine Phosphate gr. ¼ (16 mg.) or gr. ½ (32 mg.) particularly useful in treating the troublesome cough that is often part of the influenza symptom complex.

'EMPIRIN' COMPOUND with CODEINE PHOSPHATE *



* Available on oral prescription where State law permits. Subject to Federal Narcotic Regulations.

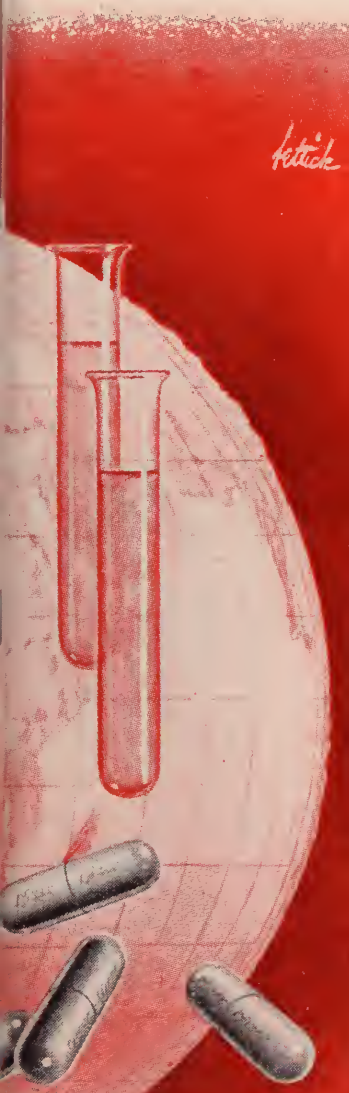
BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.



from boutonneuse fever in Africa

Whether treating boutonneuse fever, bronchopneumonia, or a host of other infections, physicians throughout the world continue to rely on the effectiveness, relative safety, and exceptional toleration of Terramycin in broad-spectrum antibiotic therapy. This continuing confidence is based upon thousands of published clinical reports and successful experience in millions of patients.

The next infection you see will more than likely be "Terra-responsive"



IN BRIEF The dependability of Terramycin in daily practice is based upon its broad range of antimicrobial effectiveness, excellent toleration, and low toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. For complete information on Terramycin dosage, administration, and precautions, consult package insert before using. *More detailed professional information available on request.*

Boutonneuse fever is a tick-borne, acute, febrile disease often affecting children. The bite site becomes a small, necrotic ulcer. A striking macular or maculopapular eruption develops on the trunk, palms and soles. Onset is sudden, with chills, high fever, violent headache and lassitude. The high temperature—up to 103° F.—characteristic of both boutonneuse fever and bronchopneumonia, drops rapidly following initiation of Terramycin therapy.

to bronchopneumonia in Illinois

BRAND OF OXYTETRACYCLINE

Terramycin® capsules • syrup • pediatric drops
intramuscular solution • intravenous

also available with nystatin as TERRASTATIN™ (capsules and oral suspension)

when urinary tract infections present a therapeutic challenge...

CHLOROMYCETIN®

(chloramphenicol, Parke-Davis)

Often recurrent...often resistant to treatment, urinary tract infections are among the most frequent and troublesome types of infections seen in clinical practice.[1,2] In such infections, successful therapy is usually dependent on identification and susceptibility testing of invading organisms, administration of appropriate antibacterial agents, and correction of obstruction or other underlying pathology.

Of these agents, one author reports: "Chloramphenicol still has the widest and most effective activity range against infections of the urinary tract. It is particularly useful against the coliform group, certain Proteus species, the micrococci and the enterococci."[1] CHLOROMYCETIN is of particular value in the management of urinary tract infections caused by *Escherichia coli* and *Aerobacter aerogenes*.[3] In addition to these clinical findings, the wide antibacterial range of CHLOROMYCETIN continues to be confirmed by recent *in vitro* studies.[4-6]

CHLOROMYCETIN (chloramphenicol, Parke-Davis) is available in various forms, including Kapseals® of 250 mg., in bottles of 16 and 100. See package insert for details of administration and dosage.

Warning: Serious and even fatal blood dyscrasias (aplastic anemia, hypoplastic anemia, thrombocytopenia, granulocytopenia) are known to occur after the administration of chloramphenicol. Blood dyscrasias have occurred after both short-term and prolonged therapy with this drug. Bearing in mind the possibility that such reactions may occur, chloramphenicol should be used only for serious infections caused by organisms which are susceptible to its antibacterial effects. Chloramphenicol should not be used when other less potentially dangerous agents will be effective, or in the treatment of trivial infections, such as colds, influenza, or viral infections of the throat, or as a prophylactic agent. *Precautions:* It is essential that adequate blood studies be made during treatment with the drug. While blood studies may detect early peripheral blood changes, such as leukopenia or granulocytopenia, before they become irreversible, such studies cannot be relied upon to detect bone marrow depression prior to development of aplastic anemia.

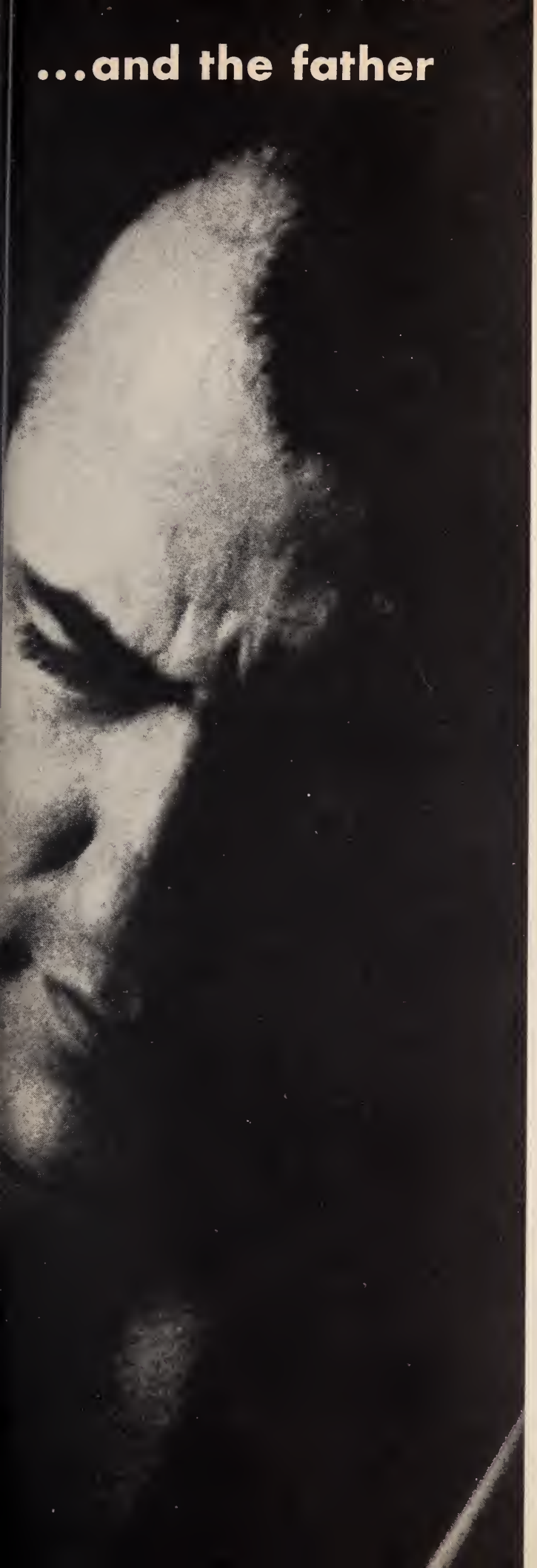
References: (1) Malone, F. J., Jr.: *Mil. Med.* **125**:836, 1960. (2) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* **34**:187, 1959. (3) Ullman, A.: *Delaware M. J.* **32**:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* **108**:48, 1961. (5) Jolliff, C. R.; Engelhard, W. E.; Ohlsen, J. R.; Heidrick, P. J., & Cain, J. A.: *Antibiotics & Chemother.* **10**: 694, 1960. (6) Lind, H. E.: *Am. J. Proctol.* **11**:392, 1960.

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PARKE, DAVIS & COMPANY, Detroit 32, Michigan


the night owl...



both victims of "communicable"* ANXIETY

both responsive to

ATARAX®

(brand of hydroxyzine HCl)

widely favored for the anxious child

ATARAX syrup

because of its efficacy, outstanding record of safety... and its excellent flavor which makes administration a pleasure instead of a project

equally effective for grownups

ATARAX tablets

and equally well tolerated by patients of any age... no dulling of mental acuity to interfere with normal activities of busy adults

FOR COMPLETE PRESCRIPTION INFORMATION, CONSULT PRODUCT BROCHURE.

*Literally, of course, anxiety is not "communicable" as the word is commonly used, but you probably see many patients whose emotional disturbances are transmitted to and reflected in the people who are closest to them.

For a high-potency vitamin B complex formula with C, recommend **ASF®** (Anti-Stress Formula).

Roerig

New York, N.Y., Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being®

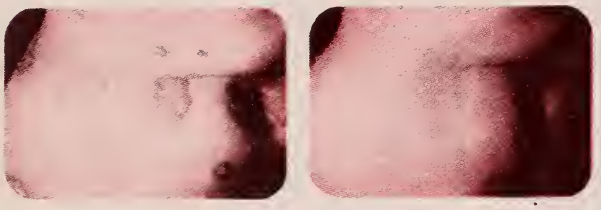
FOR PSORIASIS—ESPECIALLY IN INTERTRIGINOUS AREAS

ALPHOSYL® LUBRICATING CREAM

REMOVES SCALES! REDUCES ERYTHEMA! RELIEVES IRRITATION!

Now! The Clinically Proven ALPHOSYL Formula in a New Cream Base that Simulates Natural Skin Lipids!

Marked success in treating psoriasis—especially in intertriginous areas—is reported with new Alphosyl Lubricating Cream.[1] In a study of 96 psoriatics, 73 patients experienced 75% to 100% clearing—15 showed 50% to 75% clearing.[1] Alphosyl Lubricating Cream not only helps remove scales and reduce erythema, but a new cream base affords added lubrication between the skin folds.



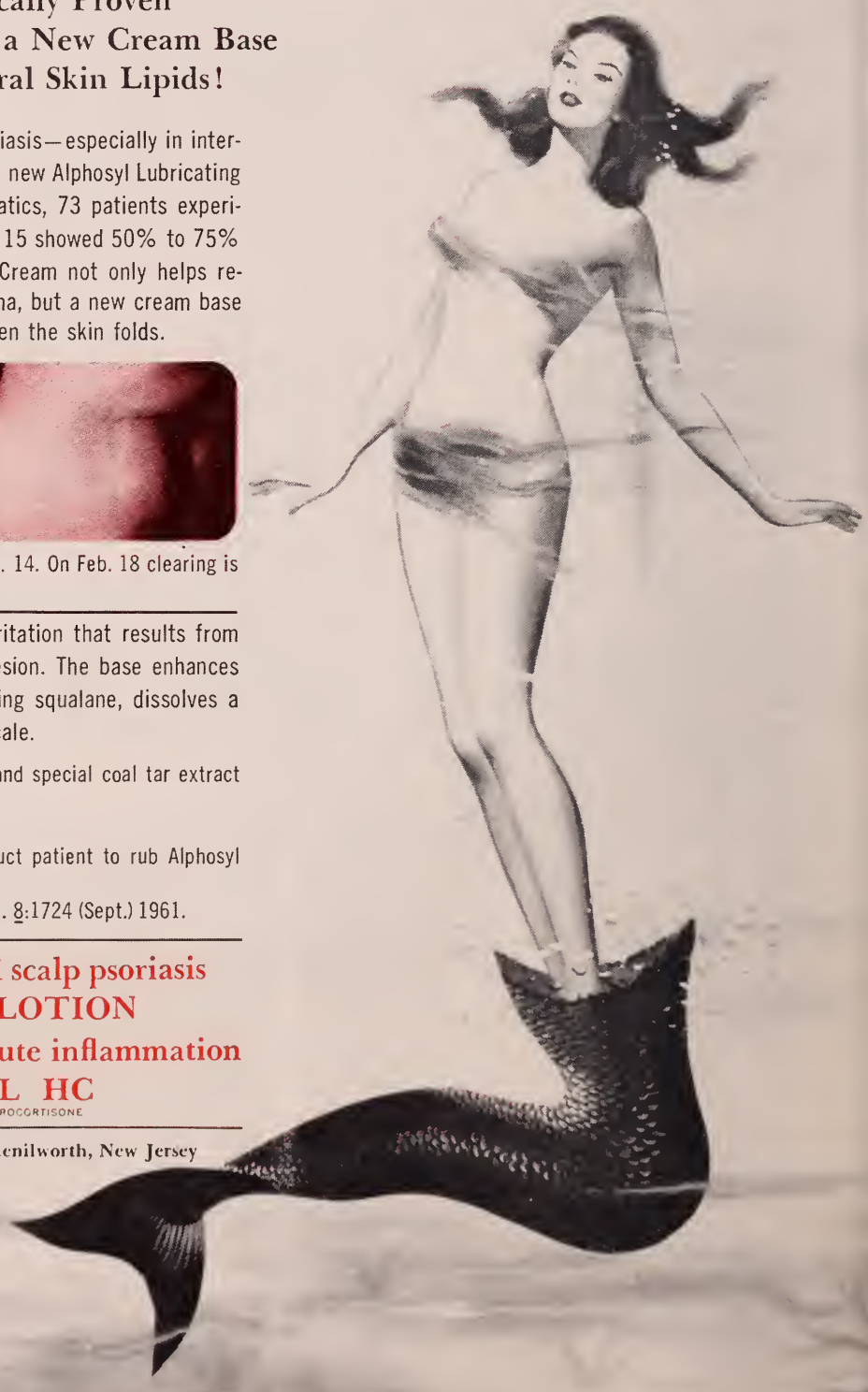
Patient E. C. Treatment started Jan. 14. On Feb. 18 clearing is almost complete.

Thus, it prevents the painful irritation that results from the rubbing of lesion against lesion. The base enhances moisture retention and, containing squalane, dissolves a cement substance in psoriatic scale.

Active Ingredients: Allantoin 2% and special coal tar extract (Tarbonis®) 5%.
Supplied: In tubes of 60 Gm.
Important Therapeutic Note: Instruct patient to rub Alphosyl vigorously into the skin.
Reference: 1. Bleiberg, J.: Clin. Med. 8:1724 (Sept.) 1961.

For generalized and scalp psoriasis
ALPHOSYL LOTION
For psoriasis—with acute inflammation
ALPHOSYL HC
LOTION WITH 0.25% HYDROCORTISONE

REED & CARNRICK / Kenilworth, New Jersey



NEWS and ANNOUNCEMENTS

Jack Neal Hits "Jackpot" In

Night Atop Chicago



SURPRISE and disbelief are reflected on Jack's face as he reads loving-cup inscription aloud.

"To the world's greatest lawyer" was the tongue-in-cheek yet heartfelt inscription on a silver loving-cup presented to John W. (Jack) Neal November 10 in the Starlight Room atop Chicago's Sherman House Hotel. This and other "gifts" Jack received that night were presented in a lighter vein but expressed sincere appreciation by the Board and staff for his 21 years of outstanding service to the Society as legal counsel and member of numerous committees. Last September Jack was appointed Executive Administrator of the Chicago Medical Society, an important factor in the continuing, effective liaison between that Society and ISMS.

The commemoration highlighted the first ISMS Board-Staff dinner party, hosted by the Board to help its members become better acquainted with staff personnel and their families. The party, attended by over 80 persons, was considered so successful that it is planned as an annual event.





UNVEILING of oil painting presented by Dr. Jacob E. Reisch *(top center)* and Dr. Burtis E. Montgomery *(top right)*, representing Board of Trustees, leaves Jack speechless—unusual for a lawyer.

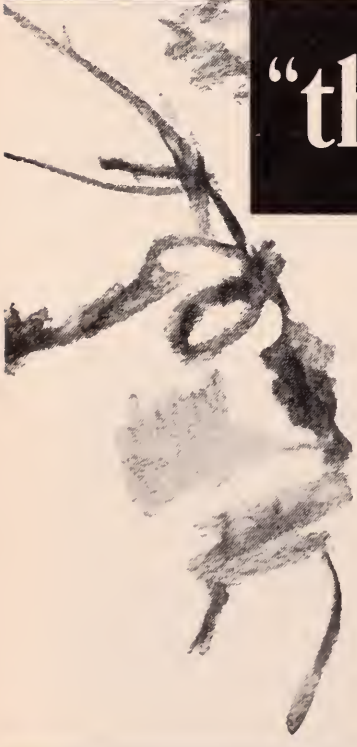


"MONKEYING AROUND" with Hear-See-Speak No Evil figures presented by staffers Roger White *(far left)*, Bob Richards *(second from right)*, and Al Boeck *(far right)*.



over 80 years' specialized experience
in the restorative treatment of

"the Problem Drinker"



At The Keeley Institute your patients are assured of receiving:

- the most modern, coordinated, comprehensive, rehabilitative regimen
- in addition to medical, nutritional and physiotherapeutic treatment, we also offer psychiatric diagnosis and psychotherapy
- full cooperation throughout with the referring physician
- surprisingly low cost—to cover all medical care, medicines, laboratory work, room and excellent cuisine

You can obtain more detailed information by writing us direct.

We welcome your referrals....

THE **KEELEY INSTITUTE**
DWIGHT, ILLINOIS

Member American Hospital Association
Member Illinois Hospital Association
Licensed by the Department of Public Health, State of Illinois

Adams

The Society for Academic Achievement, initiated in Quincy in 1959 under the sponsorship of the Kiwanis and Adams County and Mississippi Valley Medical societies, has received another citation for a noteworthy contribution to education. This award was presented by the magazine, Better Homes & Gardens. Dr. Harold Swanberg, secretary-treasurer, is now planning a tour of the Southwest to promote the society and its aims of improving academic output and securing a college education for every academically talented youth.

Cook

Awards

Annie Laurie Peeler, assistant professor of pathology at Northwestern University Medical School, was recently named "Medical Technologist of the Year." The award was presented by the Illinois Medical Technologists Association. She is president-elect of the American Society of Medical Technologists.

The 1962 Borden Award in the Medical Sciences given by the Association of American Medical Colleges has been awarded to Dr. Leon Orris Jacobson, Professor and Chairman of the Department of Medicine, at the University of Chicago and Director of the Argonne Cancer Research Hospital. Dr. Jacobson was cited in the Borden Award presentation for his ability both to "develop programs of research which yield decisive answers" and to translate the results of basic research "into a form pertinent to problems of disease and health in man."

Dr. Willis J. Potts was the recipient of the William E. Ladd medal of the American Academy of Pediatrics at their recent convention in Chicago. The medal is presented by the Surgical Section of the Academy for accomplishments of outstanding merit in pediatric surgery. Dr. Potts is professor emeritus of surgery at Northwestern University Medical School.

Dr. Morris Fishbein, professor emeritus at the University of Chicago Rush Medical College and at the University of Illinois College of Medicine, was recently named to receive the 1962 "Heart and Torch" Award of the American Heart Association.

U. of I. Begins Assistance to Thailand

A cooperative assistance program with the medical school in Chiengmai, Thailand, has been officially approved by the University of Illinois Board of Trustees.

As a result, the University of Illinois College of Medicine is already assisting in the development of the faculty of medicine by providing a field staff for the hospital. Dr. James C. Plagge, professor of anatomy at the College of Medicine, is coordinator of the project. The field staff is composed of specialists in medical education and related fields and will supply administrative support as it becomes required.

The overseas staff for the first year will consist of eight persons including Dr. Richard J. Winzler, professor and head of the department of biological chemistry at the College of Medicine and Dr. John B. Fuller, professor of pathology and director of laboratories at the University of Illinois Hospitals. Both of these men are now in Chiengmai, as is Thelma M. Garvin, chief medical technician in the hospital laboratories.

Other members of the College of Medicine staff who are en route or will be going to Chiengmai include: Dr. Howard J. Shaughnessy, professor and head of the public health department; Dr. Roy J. Korn, associate professor of medicine and Dr. William V. Whitehorn, professor of physiology.

Elections

Dr. Edward J. Krol of Chicago has assumed the presidency of the American College of Gastroenterology. Elected vice-president was Dr. John P. Waitkus and elected trustee was Dr. George J. Rukstinat both of Chicago.

Dr. Irving E. Steck has been elected chairman of the medical and scientific committee of the Illinois Chapter of the Arthritis and Rheumatism Foundation.

Grants

A total of $611,074 in grants for research and training were awarded to the University of Illinois Chicago Medical Center recently. Grants from the Public Health Service went to the departments of psychiatry, preventive medicine, medicine and cleft palate orthodontia.

Radio Series Spotlights Latest Research

Dr. William Dolowy, Administrator of the Medical Research Laboratory at the University of Illinois Medical Center, is the host of a current series on WLS radio, Sundays at 10:30 a.m. The series, which began Nov. 18 and will continue for 10 weeks, presents roundtable interviews with guests discussing the latest research available on a variety of medical subjects and problems.

Woman Physician Receives Stritch Award

Dr. Gertrude Mary Engbring, a clinical professor at Stritch School of Medicine, received the Stritch Award for 1962 at the Annual Award Dinner held November 20 in the Conrad Hilton Hotel. Dr. Engbring was cited for "her distinguished contributions to medical education and medical care."

A native of Effingham, Illinois, and graduate of Loyola Medical School in 1927, Dr. Engbring is the author and co-author of many medical and historical scientific papers. In addition to her work at the Stritch Medical School, she is an attending physician at Cook County and St. Joseph's hospitals and maintains her own practice.

Appointments

Dr. Albert Dorgman, professor of pediatrics at the University of Chicago and director of the La Rabida-University of Chicago Institute, has been appointed chairman of the department of pediatrics at the University.

Dr. Thomas A. Garrett, medical director of Baxter Laboratories in Morton Grove has been named a vice-president of the firm.

Richard D. Gifford has been named an Assistant Superintendent of the University of Chicago Hospitals and Clinics. He will be in charge of the out-patient clinics and departments at the University of Chicago Hospitals.

Dr. Beryl Lovitz was recently named Medical Director of the Samuel A. Goldsmith Dispensary at Mount Sinai Hospital.

Jack L. Samuels has been appointed Administrator of the Fox River Pavilion, a non-profit convalescent and rehabilitation center currently under construction in Chicago.

Psychiatric Residency Begun

Forest Hospital, a 90-bed psychiatric treatment center, has begun a new residency program. The twelve month course is for Chicago Medical students, who also are in the residency training program at Mount Sinai Hospital in Chicago. The program provides training in adult and child psychiatry, inpatient and outpatient services, ward management, training in adjunctive therapies and such treatment modalities as psychotherapy and chemotherapy. Dr. Rudolph G. Novick, medical director, is in charge of the program.

Launch Hospital Expansion

The Provident Hospital Board of Trustees has voted to expand the 71-year-old non-profit hospital.

Medical School Addition

Construction has started on a new $8,000,000 addition to Northwestern University Medical School, on East Superior Street near Fairbanks Court. The 15 story wing is expected to be completed by September of 1964. The teaching-and-research addition will adjoin the southeast sides of the Montgomery Ward Memorial and Morton Medical Research buildings. The site has been used as a faculty parking lot, until now.

The new wing will contain 92,000 square feet of usable space, expanding the school's research and education plant by nearly 50 per

cent. The addition will also double the reading room and stacks of the school's medical library.

Knox County

Dr. Robert J. Baker, associate director of the department of surgical education, Cook County Hospital will be the speaker at the December 20 meeting of the Knox County Medical Society in Galesburg. Dr. Baker will discuss the "Surgical Aspects of Pancreatic Disease."

General

AMA Plans Atlantic City Meeting

Physicians are invited to submit titles and brief abstracts of scientific papers they wish to deliver at the 1963 meeting of the American Medical Association which will be held in Atlantic City, June 16-20. The deadline is December 15.

The Third Multiple Discipline Research Forum will be held as part of the Assembly for three days and will be limited to reports, eight minutes in length, of original investigation of fundamental problems in medicine and medical practice. The deadline for Research Forum abstracts is February 1. The deadline for space in the Scientific Exhibit is January 9.

Physicians who wish to participate in the Atlantic City scientific program and desire information may write: Dr. George R. Meneely, Secretary, Council on Scientific Assembly, American Medical Association, 535 North Dearborn, Chicago 10, Illinois.

AMA Scientific Director Named

Dr. Hugh H. Hussey, dean of Georgetown University School of Medicine and chairman of the AMA's Board of Trustees, has been appointed director of the AMA's Division of Scientific Activities.

New Adoption Program Announced

Establishment of an adoption education program in the Illinois Department of Mental

Nervous
Geriatrics



Mental
Custodial

Est. 1909

RESTHAVEN

This modernly equipped institution located in the beautiful Fox River Valley 35 miles west of Chicago, cooperates with physicians to the fullest extent.

It provides accommodations for 100 patients in single and double rooms. Resthaven accepts patients as guests, voluntary, and committed by court.

RESTHAVEN HOSPITAL, 600 VILLA ST., ELGIN, ILL.

Phone: SH 2-0327

Health has been announced by Dr. Francis J. Gerty, director of mental health. The new service, to be administered by the department's child welfare unit, was designed to stimulate community interest in recruiting homes for children who need to be adopted, but for whom homes have not been available.

The adoption education program is a result of the Negro Adoption Project sponsored in 1955-1959 by the Welfare Council of Metropolitan Chicago.

Meeting Memos

ILLINOIS

The International Symposium on the Evolution of the Atherosclerotic Plaque, sponsored by the Arteriosclerosis Committees of the Chicago and American Heart Association, will be held in Chicago, March 28-29. Further information and a copy of the program may be obtained from Dr. Margaret H. Brooks, 22 West Madison, Chicago 2.

"The Effect of Various Kinds of Early Experience Upon Personal-Social, Heterosexual and Maternal Behaviors in Monkeys" will be the January 23 lecture in the current series of lectures at Forest Hospital, Des Plaines, Illinois. Harry F. Harlow, M.D., of the University of Wisconsin is the guest lecturer.

Belding H. Scribner, M.D., will deliver the seventh James B. Herrick Memorial Lecture at the Pick-Congress Hotel in Chicago Tuesday, January 8, 1963. His subject will be "The Treatment of Acute and Renal Failure." Dr.



FOR THE LONG HAUL
IN ORAL THERAPY
OF DIABETES
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Belding is Professor of Medicine, University of Washington School of Medicine, Seattle, Washington, and has carried out a number of original investigations on the clinical aspects of electrolyte and hydrogen problems. The dinner begins at 6:30 p.m. and is $6.25 per plate. For dinner reservations call or write the Chicago Heart Association, 22 West Madison. Phone: FInancial 6-4675.

NATIONAL

The 1963 meeting of the Canadian-American Medical and Dental Ski Association is scheduled for March 4-6 at Iroquois Mountain, Brimley, Michigan. Further information may be obtained from T. J. Trapasso, M.D., 816 Ashmun Street, Sault Ste. Marie, Michigan.

ANNOUNCEMENTS

PG Courses

A course in Gynecologic Endocrinology will be given at the Michael Reese Hospital and Medical Center by the Department for Research in Human Reproduction and selected faculty. The class will meet daily from 9 a.m. to 5:15 p.m., February 4-6. The course is acceptable for 24 hours of Category credit by the American Academy of General Practice.

Further information and a copy of the lecture schedule may be obtained upon request from Miss Ina E. Turner, Registrar, Department of Medical Education, Michael Reese Hospital, 29th & Ellis Avenue, Chicago 16.

The American Diabetes Association has announced its eleventh postgraduate course: Diabetes in Review: Clinical Conference, 1963 to be held January 16-17 in Boston. Further information may be obtained from the American Diabetes Association, 1 East 45th Street, New York, 17, New York.

"The Investigation of Infertility" will be the topic of the third post graduate seminar series

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1. Pomeranze, J.: Clinical Med. 8:1155, June 1961. 2. Krall, L. P. and Bradley, R. F.: Geriatrics 17:337, May 1962. 3. DeLawter, D. E. et al.: J.A.M.A. 171:1786, Nov. 28, 1959. 4. Perkin, F. S.: J.A.M.A. 173:36, May 7, 1960. 5. Pearlman, W.: Phenformin Symposium, Houston, Feb. 1959. 6. Radding, R. S. et al.: Metabolism 11:404, April 1962. 7. Gold, A. et al.: Applied Therapeutics 2:137, 1960. 8. Brown, G. D. and Gabert, H.: Applied Therapeutics 4:451, May 1962. 9. Gold, A.: Applied Therapeutics 4:466, May 1962.

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on reproduction of the Barren Foundation. Lecturers are Dr. R. Landau of the University of Chicago and Dr. J. J. Gold, Dr. M. R. Cohen, and Dr. Donald Oken, all of Michael Reese Hospital. Their topics will include the diagnostic workups of the infertile male and female, special investigative procedures in fertility and the emotional aspects of infertility. The seminar will be held January 23, 2-5 p.m. at the Dora De Lee Hall, Chicago Lying-In Hospital, 5841 Maryland Avenue, Chicago, Illinois, Admission is free.

"Obstetrics in 1973" will be discussed during a postgraduate conference in Obstetrics and Gynecology January 8 and 9 at The State University of Iowa College of Medicine in Iowa City, Iowa.

Dr. Robert A. Kimbrough, medical director of The American College of Obstetricians and Gynecologists, will be among five guest lecturers participating in the program.

Among other subjects to be presented are "The Use of Progestins in Obstetrics and Gynecology," "Changes in Concepts on the Management of Trophoblastic Disease," "Uterine Dysfunction, Effects of Anesthetic and Analgesic Agents," "Vulvovaginal Discharge and Itching in the Adult Female," and a panel discussion "Breech Delivery and Midforceps."

Complete program information and registration materials can be obtained by writing John A. Gius, M.D. director of Postgraduate Medical Studies, Office of the Dean, State University of Iowa College of Medicine, Iowa City, Iowa.

Examinations

The next examination for certification in Occupational Medicine will be held March 16-18 in Washington, D.C. Applications for certification should be sent to Dr. Tom F. Whayne, Secretary-Treasurer, American Board of Preventive Medicine, 4219 Chester Avenue, Philadelphia 4, Pa.

Essay Contests

The Council on Undergraduate Medical Education of the American College of Chest Physicians is offering three cash awards for

the best contribution prepared by undergraduate medical students on any phase of the diagnosis and/or treatment of chest diseases (heart or lungs).

Deadline for manuscripts is April 1, 1963. More information may be obtained by writing the American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

New Films

"Katharine Stewart, R.T." is a new 25-minute color film about the training of an x-ray technician approved by the American College of Radiology Board of Chancellors. Prints of the film are available on loan to radiologists and x-ray technicians thru Ansco x-ray sales representatives.

"Sterilization Procedures for the Medical Office" Wyeth Laboratories motion picture, which has recently received national and international acclaim, is available to medical societies and others interested from the Wyeth Film Library, P.O. Box 8299, Philadelphia, Pa.

The National Foundation has released a new teaching film, "Medical Genetics — Part II."

Prepared by Dr. Victor A. McKusick and his associates in the division of medical genetics at the Johns Hopkins University School of Medicine, the movie deals with biochemical genetics in man. It explains with clinical examples of such disorders as sickle cell anemia, phenylketonuria, and other aminoacidurias how genetic variation is reflected through specific changes in protein structure and thereby in the physical properties and function of proteins.

The film may be obtained free of charge, except for return postage and insurance, by writing the department of professional education of the Foundation, 800 Second Ave., N.Y.

Available Literature

A 14-page pamphlet on "Football Injuries" has been prepared by Mead Johnson Laboratories and is available free to team physicians who request it. The prevention, detection and treatment of all common injuries as well as physicial conditioning and heat exhaustion are discussed. The pamphlet is available by writ-



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ing: Professional Services Department, Mead Johnson Laboratories, Evansville 21, Indiana.

"Immunization Information for International Travel," recently revised, is available at 35 cents a copy from the Government Printing Office, Washington 25, D.C.

Scandinavian Airlines has made available a comprehensive calendar of overseas medical congresses and allied events during the next year. A copy may be obtained by writing A. John Harrison, Medical Travel Section, Scandinavian Airlines System, 138-02 Queens Blvd., Jamaica 35, New York.

A guide to developing community nursing services for people in their homes has just been published by the National League for Nursing, New York. Entitled "How to Organize and Extend Community Nursing Services for the Care of the Sick at Home," the publication sells for $2.50 a copy and is available from the National League for Nursing, 10 Columbus Circle, New York 19, New York.

Detailed information on 544 new single chemical entities, introduced in the past two decades and on the United States market today, is contained in "Review of Drugs, 1941-1961". The 50-page compendium, the first of its kind anywhere, was released recently by the Pharmaceutical Manufacturers Association of Washington, D.C.

Copies of the survey are available from the Public Information Office, Pharmecutical Manufacturers Association, 1411 K Street, N.W., Washington, D.C.

Deaths

Arthur Vincent Allen°, retired, Oak Park, a graduate of Jenner Medical College in 1907, died October 3, aged 86. Chief surgeon of Commonwealth Edison for 26 years, he was a member of the Fifty Year Club.

Paul Schuh Baur, Texas, a graduate of the University of Arkansas School of Medicine in 1937, died October 22, aged 53. He had practiced medicine in Cairo, Illinois for over twenty years and had served a term as mayor of that city. He was also a past secretary of the Alexander County Medical Society.

Arthur H. Conley°, River Forest, a graduate of

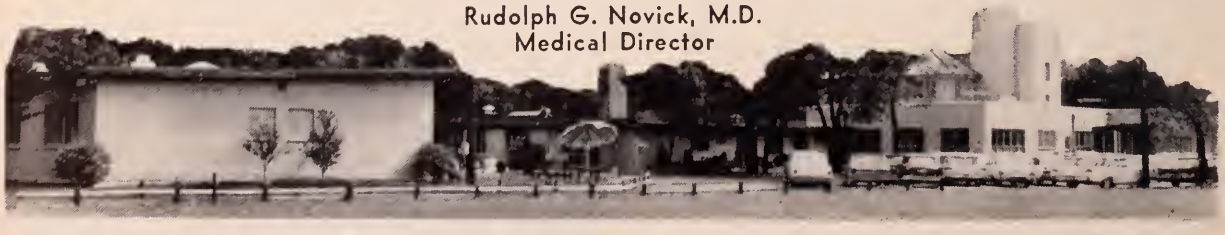


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Northwestern University Medical School in 1924, died November 5, aged 62. Certified in orthopedic surgery in 1938, he was a member of the American Academy of Orthopedic Surgery and the International College of Surgeons. During World War II, he was a major in the Medical Corps. At the time of his death, he was president of the staff of Oak Park Hospital.

Delbert E. Fatheree*, Xenia, a graduate of the University of Louisville School of Medicine in 1915, died October 17, aged 76. He was an emeritus member of ISMS.

Doris Faulkner, ISMS employee for eight months, died October 24. She had served as Illinois Medical Journal subscription clerk and addressograph operator.

Ray H. Freeark*, Chicago, a graduate of the University of Illinois in 1920, died October 18, aged 70. He was on the staff of the Woodlawn and Illinois Central hospitals.

Louis H. Friedrich, retired, Chicago, a graduate of Marion-Sims College of Medicine, St. Louis in 1897, died October 15, aged 94. He had served as an instructor in urology at the Bennett School of Medicine and was a captain in the medical corps in World War I.

Clifford G. Grulee*, Evanston, a graduate of Northwestern University Medical School in 1903, aged 82. A member of the Fifty Year club and an emeritus member of ISMS, he was the honorary president and founder of the American Academy of Pediatrics. Certified in pediatrics in 1934, he headed the department of pediatrics at Presbyterian Hospital, served as assistant chief of the children's bureau of the American Red Cross in France during World War I and served as the editor of the American Journal of Diseases of Children for 30 years. He was founder and a member of the board of the Infant Welfare Society of Chicago and former president of Phi Rho Sigma, honorary medical fraternity.

Otto Charles Huber*, Oak Park, a graduate of Chicago College of Medicine and Surgery in 1912, died October 16, aged 78. Chairman of the Board of Garfield Park Community Hospital, he had practiced in Chicago for more than 50 years and was a former chemistry professor at Loyola University.

Fiske Jones, Oak Park, a graduate of the University of Minnesota Medical School in 1916, died October 17, aged 74. He was certified in Obstetrics-Gynecology in 1946 and had been a senior staff member in that department at West Suburban Hospital where he was a member of the board of trustees.

Carl Ferdinand Klaus, retired, Chicago, a graduate of Columbia University College of Physicians and Surgeons in 1890, died November 1, aged 96. A Chicago physician for 65 years, he retired several years ago.

Stephan C. Kratz*, Monticello, a graduate of the University of Illinois College of Medicine in 1943, died October 9, aged 44. He was a veteran of World War II Navy service and was a director of the board of the John and Mary Kirby Hospital at Monticello.

Walter Grierson Maddock, Chicago, a graduate of the University of Michigan Medical School in 1927, died October 26, aged 61. He was engaged extensively in cancer research work and was awarded the American Cancer society's distinguished service award in 1961. He had been professor of surgery at Northwestern University Medical school since 1946 having been certified in surgery in 1939. A founding member of the American Board of Surgery, he was former president of the Chicago Surgical Society and the Central Surgical association.

Agnes Mikkelsen*, retired, Chicago, a graduate of the University of Illinois College of Medicine in 1905, aged 83.

Andrew R. Mailer, Woodstock, a graduate of the University of Illinois College of Medicine in 1926, died October 23, aged 64.

Glenn S. Moore*, Chicago, a graduate of St. Louis College of Physicians and Surgeons in 1921, died October 18, aged 67. He was a director of the Chicago Biological Research Foundation.

Ludson D. Morris, Mount Carmel, a graduate of Chicago Medical School in 1935, died October 16, aged 55.

John H. Whaley*, Oak Park, a graduate of Loyola University School of Medicine in 1932, died October 22, aged 58. At one time, he had served as chief of staff of Loretto Hospital.

C. R. **Johnston** was erroneously listed in the obituaries of the October issue through misinformation received by this office. We are happy to report the doctor reports that he is in better health than he has been in recent months.

**Indicates member of Illinois State Medical Society.*

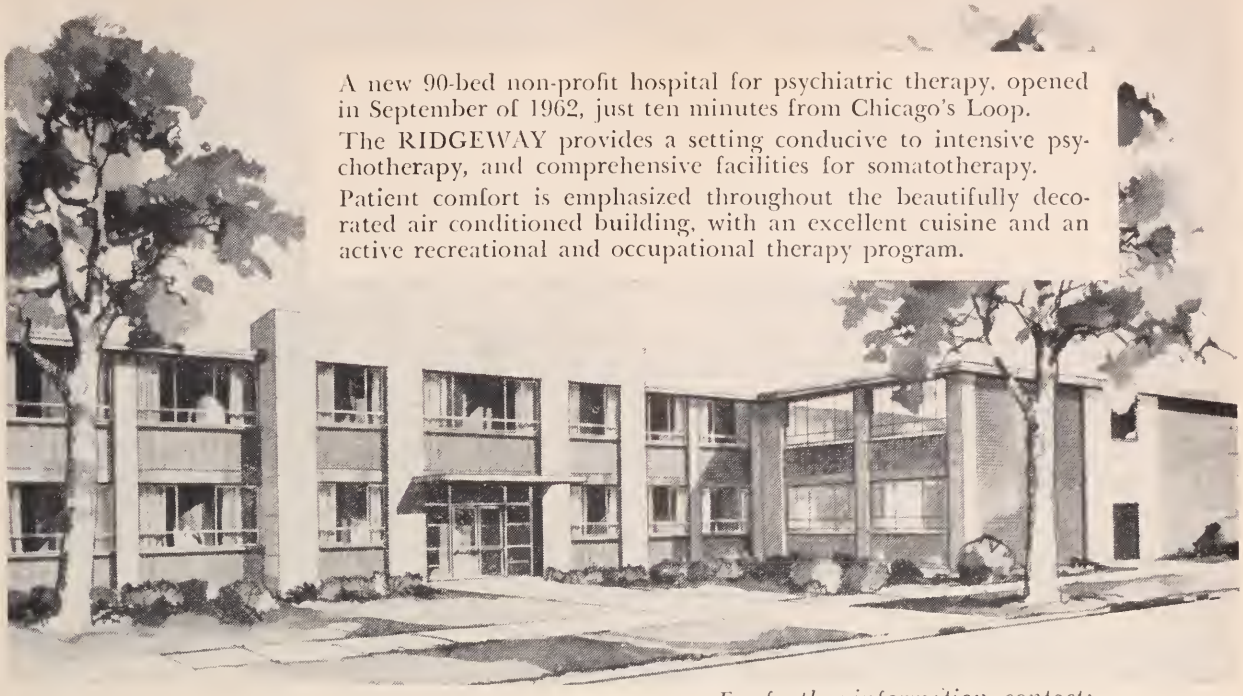


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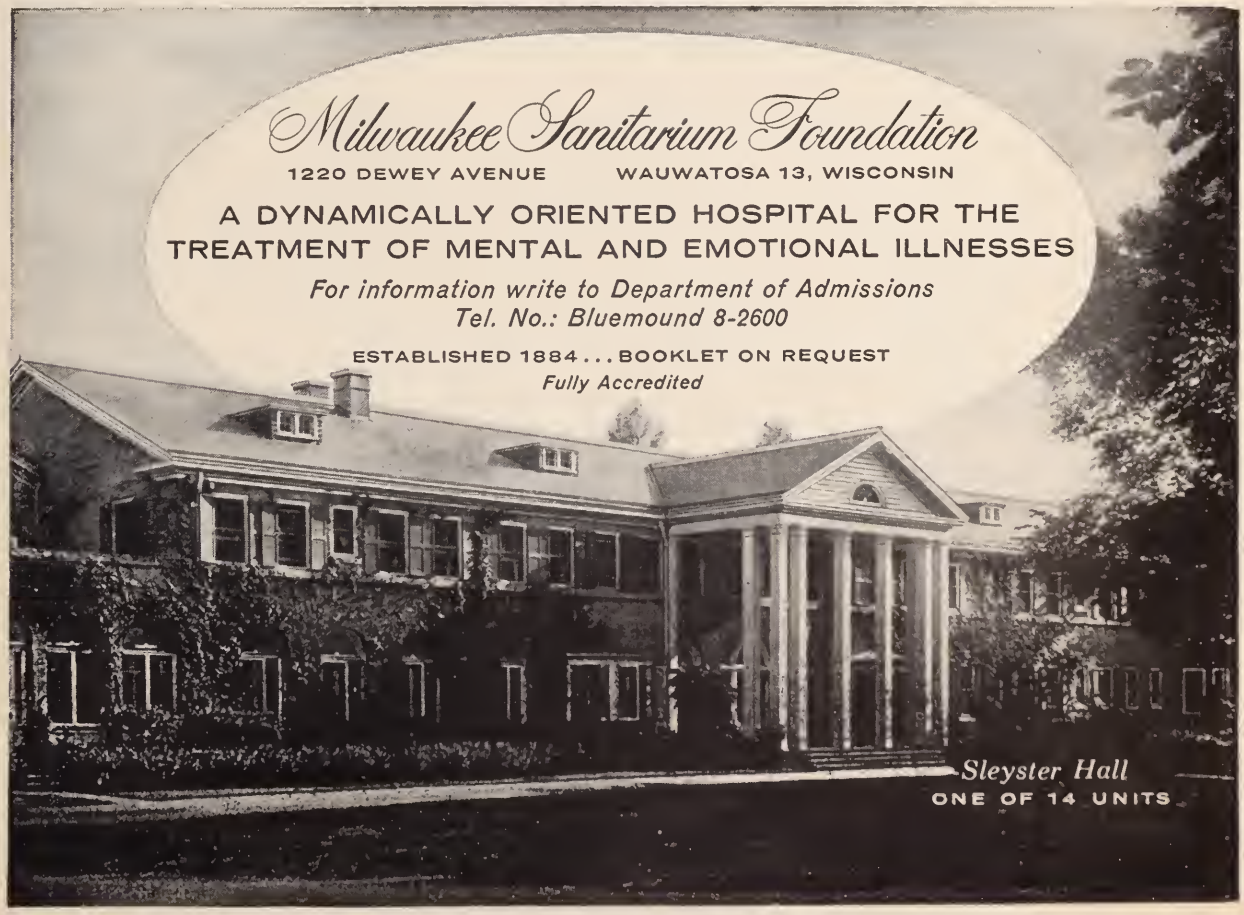
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The singular specificity of Librium in controlling anxiety and tension has proven to be an advantage in a wide range of disorders characterized by anxiety of varying degrees. Notably effective in patients whose symptoms are primarily emotional, Librium is equally valuable when organic disease is aggravated or prolonged by accompanying anxiety. Coupled with its effectiveness is an outstanding record of safety. Librium has few, if any, of the unwanted side effects associated with tranquilizers and daytime sedatives—no extrapyramidal effects, no autonomic blocking, and no dulling of mental alertness. Consult literature and dosage information, available on request, before prescribing.

the successor to the tranquilizers

LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride



ROCHE

The New York Academy of Medicine

DUE IN TWO WEEKS UNLESS RENEWED.
NOT RENEWABLE AFTER 6 WEEKS

DATE BORROWED	BORROWER
SEP 25 1963	
SEP 1 1964	